THE FOUNDATIONS OF FREEDOM
IN
LEIBNIZ'S METAPHYSICS

By

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ABSTRACT

This thesis is an investigation of the nature and foundation of freedom in Leibniz's self-avowedly deterministic metaphysics. The carrying out of this investigation requires an over-all evaluation of Leibniz's Rationalism. This evaluation is obtained by placing Leibniz in the perspective provided by an examination of Rationalism's prior development in the thought of Descartes and Spinoza.

Throughout the thesis, as a result of this particular approach, attention is focussed not only on Rationalist metaphysics, but on methodology as well, especially in terms of how the two reflect each other.

The thesis concludes by presenting the nature of freedom, and of Leibniz's Rationalism generally, as springing from the fundamental ambiguity of the relationship between the laws of reason and God (viewed as both the source of Creation and the object of worship). As such, the relationship between freedom and determinism in Leibniz's philosophy must be regarded as depending finally on unclarified aspects of his ontological views.

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INTRODUCTION

The philosophy of Leibniz contains within it an apparent paradox with respect to the nature and existence of freedom. While Leibniz adamantly maintains the existence of freedom, both human and divine, his metaphysics and epistemology at the same time commit him to a thorough-going determinism. Leibniz was acutely aware of the fact that these two positions are apparently contradictory, but at the same time, he was unequivocal in asserting that the contradiction was only apparent.

The purpose of this thesis is to investigate the foundations of Leibniz's notion of freedom provided by his general metaphysical position, in an attempt to understand and evaluate Leibniz's position with respect to the compatability of freedom and determinism.

While the purpose of this thesis is straight-forward, the carrying out of that purpose is not so, for several reasons. There are, in fact, several different senses in which it may be said that Leibniz did not philosophize in a vacuum.

In the first place, Leibniz was not a philosopher by profession, but by inclination. The diversity of his interests and investigations need not be belaboured here, save that it cannot be too strongly insisted upon that all of those various inquiries were carried on by a sincere and serious student, and not by a mere aristocratic dilettante striving to avoid the boredom to which that class is heir.

No attempt will be made here to sketch, even briefly, the manner in which these various studies influenced Leibniz's metaphysics. Leibniz's investigations in the realm of physics are, however, of especial concern here, and mention of them cannot be totally omitted. They represent both an important aspect of Leibniz's critique of Descartes and a key to Leibniz's modifications of Cartesian Rationalism.

The importance of Leibniz's physical investigations for his philosophy is, in fact, derivative from the importance of Rationalism in general upon his thought. Although there is no question of the influence of Plato and Aristotle, Augustine and Suarez, Hobbes and Gassendi upon Leibniz, no attempt to understand the basis of Leibniz's thought can make any claim to success without taking into account the influence upon him of Continental Rationalism in general and Descartes and Spinoza in particular.

It is Leibniz's position as the last great Continental Rationalist which indicates the second sort of significant influence upon his philosophy. Both Descartes and Spinoza, as the chief Rationalist precursors of Leibniz, had significant effects upon the development of his views. As will be seen, this is evident both in the similarities in the views of these philosophers and, equally important, in their differences.

While Leibniz was influenced in his philosophical views both by other thinkers and by his endeavors in other areas, there is also a crucial role played in his own thinking by the tension between its various aspects. In particular,

the relationship between his metaphysics per se and the methodology which arises from his epistemological position is one which will be of particular concern..

At bottom, however, Leibniz's view of freedom must be examined in the context of his metaphysics. Other aspects of his thought are of importance in gaining an understanding of that metaphysics, as are the thought of other Continental Rationalists. Ultimately though, it is only in light of his metaphysics that Leibniz's concept of freedom can be understood. Thus, only if some access can be found to Leibniz's metaphysics can his view of freedom be evaluated, but that evaluation must be made strictly within the context of that metaphysics.

I

THE RATIONALIST BACKGROUND

In order to ascertain the nature of freedom as it is conceived of by Leibniz, and determine the basis of this conception as presented in his metaphysics, it is first necessary to consider his metaphysics from a broader perspective and provide an account of its genesis. The wide range of Leibniz's interests and the great degree to which they are interrelated makes this task both more necessary and more difficult. It is equally clear that the difficulty is further compounded by the fact that, in carrying out investigations on such a wide assortment of topics, Leibniz was influenced by the writings of his many predecessors and contemporaries in each area.

At the outset, it is apparent that, from a philosophic point of view, the nature of freedom and its relation to the metaphysics of <u>any</u> philosopher are not matters of detail. The intricacies involved in Leibniz's consideration of these matters will be made clear in what follows, but I must first present the context in which they appear, thus providing the means by which a clear understanding of the subtleties involved may be attained.

The influences upon Leibniz's thought were many, but chief among them was Descartes. Indeed, as we shall see, the philosophy of Leibniz can in many respects be regarded merely as a refinement of the Cartesian school's views. A great deal of insight can, I think, be gained into the thought of Leibniz

by providing brief accounts of the philosophical views of Descartes and Spinoza. Though they are by no means alone in having an influence on Leibniz's thought, the great similarities of approach which these thinkers all share makes them ideal as a point of introduction to the thought of Leibniz itself. Further, as a result of this great similarity, it is considerably easier to locate the points at which Leibniz's philosophy differs from that of Descartes and Spinoza. Thus, by means of first presenting some account of Descartes and Spinoza we shall, by a process of contrast, discern what is original in the metaphysical views of Leibniz when we come to consider Leibniz himself.

First and foremost, Descartes' importance with respect to Leibniz, as indeed with respect to all of Modern Philosophy, springs from his position as the prime instigator and advocate of Rationalism. It is outside of the scope of this thesis to provide a complete analysis of Cartesian Rationalism, however, it is necessary to sketch at least the main tenets of Descartes' philosophy. A presentation of the method of investigation and the results obtained by the Rationalists is, at any rate, bound to provide as precise an understanding as any summary of the position in general which I might attempt.

By way of a preliminary negative characterization of Descartes' position, we may take his statement that,

> "the sciences found in books--in those at least whose reasonings are only probable and which have no demonstrations, composed as they are of the gradually accumulated opinions of many-different individuals--do not appear so

> near the truth as the simple reasoning which a man of common sense can quite naturally carry out respecting the things which come immediately before him."[1]

Descartes' rejection of things written in books is neither simply nor solely a rejection of the appeal to authority. We are not asked to abjure all things written, but we are warned against attributing truth to things which are merely asserted and not proven.

This position is, however, best understood as a consequence of the methodological principle of radical doubt, characteristic of Descartes' philosophy, as expressed, e.g. in "The Principles of Philosophy", Part I, Principle I: "That in order to examine the truth, it is necessary once in one's life to doubt of all things, so far as it is possible."[2]

The very next proposition goes even further, by demanding not simply that we doubt all things which we can, but that we regard them as false.[3] The rejection of the unproven is the result then only of the general suspension of belief which we are enjoined to perform, to the extent that we are capable of it. Whatever we are incapable of doubting will possess truth, the certainty of which is the greatest that we can attain. (It may be mentioned that, though Descartes cites 'clearness and distinctness' as the criteria of such cer-

[1]René Descartes, "Discourse on the Method of Rightly Conducting the Reason" in The Philosophical Works of Descartes, 2 Vols. trans. Elizabeth S. Haldane and G.R.T. Ross, Vol. I. Cambridge University Press: London, 1931, p. 88.

[2]Ibid. "The Principles of Philosophy", Vol. I, p. 219.

[3]Ibidem.

tainties[1] when, in Meditation II[2] he discusses the certainty of his own existence, it is at least suggested that the conscious denial of his own existence would involve him in a self-contradiction, and as such cannot be entertained. As will be seen in Chapter II, Leibniz's criteria for determining absolute certainty represent in some respects a shift from explicitly Cartesian criteria to more purely logical ones. Descartes' equivocation in the second Meditation indicates, I think, that Leibniz's modifications are not evidence of so complete a break with Descartes as might at first appear.

At first glance there seems to be no prior guarantee that engaging on a programme of radical doubt in the Cartesian manner will not end in Pyrrhonism. There is, however, implicit in Descartes' method, a faith in reason and its capacity to lead us to truth. Moreover, the power of reason necessary for this search for truth is only that which the 'simple man of common sense' possesses. The true starting point of Descartes' philosophy may thus be regarded as a decision to adhere to a procedure guided solely by reason. Only in this way can the certainty of our conclusions be assured.

The fundamental role of reason and the method of investigation which it dictates makes clear the significance of Descartes' demand for demonstration of things claimed to be true. It is not enough that we know such demonstrations to be

[1]Cf. e.g. "Principles of Philosophy", Part I, Principle XLIII.

[2]Descartes, "Meditations on First Philosophy", Vol. I, p. 150.

possible, or that they have, in fact been worked out by the author but have simply been omitted. We must be presented with these demonstrations so that we may work through them ourselves, bringing our own reason to bear upon them. Nothing can be accepted on faith, without a reasoned examination of its foundations (excepting only reason itself).

A faith in reason is, of course, a feature common to most philosophers and to many other investigators as well. Descartes, however, and the other Rationalists of the seventeenth century (Leibniz included) place reason's power far beyond that which others would, who consider themselves no less rational. Reason is, for Descartes, not simply a means by which to judge the truth, or intelligibility of something, but is used as well to judge of the nature of the real. That is, reason is recognised at the sole reliable guide to knowledge of what is. Anything which is not susceptible to examination by unaided reason loses its claim not merely to being an object of possible knowledge, but to any genuine reality of its own. This basic feature of Cartesian Rationalism shows, I think, how it was possible for Descartes to eventually reduce the essence of man to that of mind, i.e. thinking substance.

The role of reason as a fundamental guide to the metaphysical foundation of the universe is prominent as well in Leibniz's thought, and I shall have more to say with regard to it in this aspect when I present an analysis of his metaphysical view proper.

Rationalism does not, by any means, confine itself solely to the sphere of metaphysics. Given the primary importance of reason for Descartes, it is evident that its employment must extend to all fields of inquiry. This being the case, there is a requirement that we begin by ascertaining the method whereby reason may be employed correctly. Such methodological principles must be developed in isolation of particular sense experience, emotional predispositions or indeed of any alleged 'facts' arrived at prior to the establishment of these principles, for as yet there can be no grounds for accepting any of these. Instead, method must be designed to meet such criteria of truth as can be ascertained by the intellect alone.[1]

Since only reason is capable of providing us with access to the truth, Descartes is compelled to seek out those functions of the intellect by which we gain such access. He finds two such functions which seem adequate to the task; intuition and deduction.

> Intuition is, "...the conception which an unclouded and attentive mind gives us so readily and distinctly that we are wholly freed from doubt about that which we understand. Or what comes to the same thing, intuition is the undoubting conception of an unclouded and attentive mind, and springs from the light of reason alone; it is more certain than deduction itself, in that it is simpler, though deduction...cannot by us be erroneously conducted. Thus each individual can mentally have intuition of the fact that he exists and that he thinks; that the triangle is bounded by three lines only, the sphere by a

[1]Descartes, c.f. p. 34, "Rules for the Direction of the Mind" in The Philosophical Works of Descartes, Vol. I.

single superficies and so on."[1]

Given Descartes' insistence on the indubitable nature of truth, it is appropriate here to point out the role which it plays in intuition. The second of the two descriptions of intuition in the above quotation claims that the 'conception' itself (not to be confused with an imagining) is 'undoubting'. It does not merely maintain that we do not or cannot doubt such a conception, which might be taken as the main assertion of the first description. A true intuition, one made by an 'unclouded and attentive mind', is an 'undoubting conception'; the act of conceiving does not itself possess any element of doubt. It is evident from this that no grounds for doubting it will be found after the fact, for any such grounds are precluded by the nature of the act of conceiving.

Lest our lack of doubt in intuitive matters be taken as merely a matter of psychology, misinterpreted by Descartes, it is well to point out the source from which this certainty springs.

Intuition arises 'from the light of reason alone'. Although it does not involve reasoning (as will be shown, for Descartes, it is the foundation of reasoning) it is a complete rational act, paradigmatic of truth. Nor should it be assumed that, by claiming that intuition is a product of the light of reason, Descartes begs the question by positing a further faculty of consciousness on which intuition relies. Rather,

[1]Ibid. p. 7.

it is at this point that we receive an indication of the extent to which reason represents a fundamental aspect of Descartes' metaphysics.

"(T)he human mind has in it something that we may call divine, wherein are scattered the first germs of useful modes of thought."[1]

Reason then, is being presented here not simply as some divine gift, but as an aspect of human mentality which is, at the same time, regarded as somehow 'higher' and capable of providing us with a certainty not accessible by merely human faculties. Those things which in intellect have a human source, e.g. sense and imagination, are liable to error. Intuition alone is not grounded only in human nature, thus it alone can make a claim to certainty which extends beyond the range of our other faculties. At minimum, the suggestion here is that we can to some extent transcend the merely personal subjectivity which is a feature of the rest of our experience.

The second of our useful modes of thought, according to Descartes, is deduction. He is somewhat ambiguous in his characterization of the nature of deduction, but given what has already been noted regarding intuition, his position can, I think, be made clear.

Deduction is described as, "...all necessary inference from other facts that are known with certainty."[2]

The certain facts with which, in the first instance,

[1]Ibid. p. 10.
[2]Ibid. p. 8.

at least, deduction begins must be those provided by intuition, for intuition is the only source of certainty which has so far been discovered. Deduction appears not to differ from intuition in terms of the validity of conclusions reached by means of it, but by the fact that it involves inference.

> "...(W)e distinguish...mental intuition from deduction by the fact that into the conception of the latter there enters a certain movement or succession, into that of the former there does not. Further deduction does not require an immediately presented evidence such as intuition possesses; its certitude is rather conferred upon it in some way by memory."[1]

As mentioned above (c.f. p. 9) Descartes claims that, when properly conducted, there can be no error in our deduction. Deduction does not, however, possess the immediate evidence of intuition, but depends, in some way, upon memory. In order for these two statements not to conflict, it appears necessary that some further comment be made concerning memory, for it seems ordinarily to be somewhat less that infallible.

Although deduction does not appear to be directly dependent upon intuition at every step, it is evident that it must begin from an intuition, that is, it requires 'facts known with certainty' as a starting point. From such facts it is possible to infer or deduce other facts founded upon them. Despite the characterization of deduction as, in some way, a movement, this movement cannot be regarded as a simple flowing along, but as a smooth progression from one step (fact) to the next. Thus, initially, deduction seems to lead

[1]Ibid. p. 8.

us from intuited fact to one which can be seen to follow from it.

> "The upshot of the matter is that it is possible to say that those propositions which are immediately deduced from first principles are now known by intuition, now by deduction."[1]

At the point of the first step in any deductive chain, it appears that the separation between intuition and deduction is not one which can be too dogmatically insisted upon. Although they are distinct operations, there is, to some degree, an overlap between them. The first step of a deduction may be either an actual deduction or it may simply be 'seen' rather than result from deductive activity, and it is this immediate sort of mental vision which is characteristic of intuition. There appears to be a fair amount of ambiguity here. Descartes' refusal to insist upon a clear separation between intuition and deduction stems, it seems, from his identification of intuition as the source of certainty for us, while at the same time recognizing the need for deductions, or connected chains of reasoning. At least in the initial steps of a deduction, it appears that Descartes wishes to maintain that the truth of a deduction can be known intuitively.

Deduction of course, goes beyond the first step from intuitive fact to primary deduced fact. From this first deduced fact it may progress to a second and thence to a third and so on. Hence it is necessary that deduction must be a continuous, uninterrupted process or else we may lose our way.

[1]Ibid. p.8.

forgetting the precise point we had reached in the chain, or the exact nature of the final fact deduced and the foundation upon which it depends.

The proper functioning of memory can only take place within the continuous movement of deduction. It must hold before the mind all of the facts and previous inferences so that nothing of what has gone before is ever absent at any given stage in the deduction. Thus deduction appears not so much as a progression from step to step, but as an accumulation built upon an initial intuition.

Although memory makes valid deduction possible, it also limits the length of any deduction to no more than can be held before the mind at one time. For memory must adhere to the demand for continuity or the requirement for an uninterrupted chain of reasoning which prevents us from extending our use of memory beyond its proper limitations, requiring that we break off our deduction whenever we can no longer hold the whole before our minds and repeat the deduction in an attempt to regain it.

Although this might seem a severe limitation upon reasoning, it prevents us from making faulty inferences, and any further extension of a deduction would lack the certainty necessary for the conclusions of right reasoning. Though it appears that few, if any, notable conclusions could be reached by so restrictive a set of guidelines, there are no specific limitations upon the length of our deductions. We may extend them so far as we are able and, doubtless, by continued use

these faculties may be cultivated to the extent that we can carry on relatively longer deductions with reasonable ease.

Having established to his satisfaction these two mental operations as alone capable of leading us to truth, Descartes is prepared to discard all else as incapable of providing a similar certainty.

> "...(A)s for the other mental operations, which Dialectic does its best to direct by making use of these prior ones, they are quite useless here; rather they are to be accounted impediments, because nothing can be added to the pure light of reason which does not in some way obscure it."[1]

For Descartes, only intuition and deduction are capable of providing the intellect with a method of attaining truth. There is, of course, a third route to truth, that of divine revelation. As it requires no particular intellectual endeavor, however, save a willingness to accept it when it is provided, it can play no role in the development of a method by which to investigate things on a more mundane level.

What have been described so far, are only the tools to be utilized in constructing a method for seeking the truth. Having grasped the nature of these tools, Descartes is in a position to construct a method, with an eye to the limitations imposed on it a priori by them.

Descartes provides, in "The Rules for the Direction of the Mind" two formulations of what is essential in his method;

> "Method consists entirely in the order and disposition of the objects towards which our

[1]Ibid. p. 10.

> mental vision must be directed if we are to find out any truth."[1]
>
> "Herein lies the secret of this whole method, that in all things we should diligently mark that which is most absolute."[2]

Descartes' requirement for the following of an orderly path from the point at which it begins to that at which it ends demands more than simply order; it demands the correct starting point as well. Since the conclusions of a deduction have no more truth than is possessed by the premisses, it is imperative that we begin from a point on which we are certain, and such a point can only be provided by intuition. An intuition is thus not only certain but 'absolute', i.e. that "...which contains within itself the pure and simple essence of which we are in quest."[3]

As examples of things absolute, Descartes provides a list to which the term can be applied, "...whatever is considered as being independent or a cause, or simple, universal one, equal, like, straight and so forth...".[4]

It is required, then, that method consist of two separate procedures, one by which we ~~gain~~ knowledge of these absolutes and the second, by which we build upon them to attain truths of greater complexity.

The first procedure is basically intuitive. Whatever is before the intellect when it thinks can be reduced to an

[1]Ibid. p. 14.
[2]Ibid. p. 16.
[3]Ibid. p. 15.
[4]Ibidem. p. 15.

absolute or a set of absolutes which are capable of no further reduction. Descartes has given an indication of what sort of things these absolutes are (independence, etc.), but the surest sign that our analysis has proceeded correctly will be the intuitive nature of the end-product. Descartes does not, however, provide any precise instructions for carrying out such reductions. Although we are sure to recognize the absolute when we arrive at it, we have no further indication of how to proceed than to pay attention to the order of the objects presented to us. Facility in this process of analysis is presumably to be gained by practise. (Here again the importance for Descartes of rejecting what is merely presented, without personally examining it, is obvious. Not only does this examination prevent us from being taken in by the errors of others, it provides as well an opportunity to practise the method, the only way in which one can become adept in its use.)

The second part of the method consists in the recombination of absolutes by means of deduction. This synthetic procedure is appropriate, given the characterization of deduction already provided, for it is evident that the steady accumulation of conclusions found in deduction is best suited to a procedure whereby more and more complex ideas are acquired. It is apparent, too, why the function of memory is so vital, for it provides us constantly with an awareness of the elements from which these complex ideas are formed.

This, briefly, is the method (or methods) by which Descartes conducted his philosophical and physical investiga-

tions. Although I have by no means summarized it in such a way as to provide a thorough picture, enough has been done to show us, in general, the workings of Descartes' Rationalism. One point, which cannot be too often emphasized, is that reason alone is the tool to be used, according to Descartes, and that we can pursue the truth by the aid of intellect alone.

Although Leibniz, as we shall see, adopted the Cartesian method to a considerable degree, he did not do so completely. In general, Leibniz's modifications of the Cartesian method can be traced to two sources, a dissatisfaction with the adequacy of the method itself and his rejection of certain of Descartes' conclusions ostensibly attained by this method. This second reason for rejecting Descartes' method is, of course, closely related to the first and it does not seem possible in every case to make a clear distinction between the two. It is sufficient for my purpose to simply outline the more relevant conclusions reached by Descartes, along with some indication of how they follow directly from Descartes' method. Given the essential role played by practise in this method, there remains always the possibility of claiming that Descartes did not employ his method properly (a charge made, more than once, by Leibniz) but more can, I think, be gained by presuming that such charges are, for the most part, unfounded.

The lack of a clear distinction between a defective method and unsatisfactory conclusions (which are direct con-

sequences of that method) is a problem common to any epistemology. This is especially pertinent, however, when those conclusions have to do with metaphysics. It is always necessary for there to be some relation between the known and the knower such that knowledge can be possible, and epistemology must, in some way relate to ontology. That is, in order for anything to be truly known, it must, in some sense be.

In Descartes' rationalistic epistemology there is the presupposition not only of an order in what is, which is accessible only intellectually, but also the basis of a rationalistic ontology. Thus, what is known, at the most fundamental level is that which is ontologically fundamental, and any errors contained in Descartes' method will produce corresponding errors in his ontology.

By means of a knowledge of absolutes, Descartes is able to construct, or build up, knowledge of more complex objects. This is possible, (presuming that the knowledge gained is real knowledge, not knowledge of mere fictions) only because complex objects themselves are built up from absolutes or simples. The maxim of radical doubt leads us not merely to what is most certain epistemologically, but also to what is, at the most basic ontological level.

It is only in light of this relation between epistemology and ontology that Descartes' positing of a radical mind-body dualism can be comprehended.

Having discovered that he can doubt everything except his own existence, Descartes is obliged to seek the essence of

that existence by discovering what absolute it can be reduced to.[1] His conclusion that thought is the essence of his existence provides him not only with a knowledge of what he is, but, given the nature of absolutes, also with what he is not.

"...(T)he soul by which I am what I am is entirely distinct from body..."[2]

Descartes' method entitles him not merely to consider himself as essentially thinking substance but to claim that he is thinking substance. This, much stronger, second claim is one which can only be understood by a complete grasp of Descartes' use of radical doubt to lead him, not to things which may, for convenience sake, be considered by themselves, but to those absolutes which are independent. The end-products of analysis are not, for Descartes, merely basic concepts in an epistemological sense, but are rather the correlates of what actually exists. Thus, Descartes' analysis of man's essence leads him to maintain not that man can most simply be regarded as a thinking thing, but that, in fact, man essentially is a thinking thing.

It is in a similar way that Descartes analizes body and determines that its essence lies in extension alone (c.f.

[1]Descartes, c.f. e.g. "Discourse on the Method of Rightly Conducting the Reason", Part IV. As the arguments Descartes uses with respect to the nature of mind and body are substantially the same in all of his major philosophical writings, I will confine myself for the most part to a clear presentation of his views, without limiting myself to their presentation in any particular work.

[2]Ibid. p. 101.

e.g. "The Principles of Philosophy", Part II, Principles IV-X). As should be evident, it is the positing of these two distinct independent substances which results in Descartes' inability to provide any satisfactory account of their interaction. Further, any attempt to provide for such interaction (as opposed to e.g. an occasionalist or parallelist account) must depend on a complete re-evaluation of the method which generates this paradox.

More important directly, however, are Descartes' proofs for the existence of God and the further limitations placed upon his philosophy by the conception of God which results from them.

Despite the independence of his nature, as thinking substance, from the material world, Descartes is aware of the imperfection or limitation of that nature.[1] Since he does, however, have a knowledge of perfections greater than he possesses and of which he cannot therefore be the source, Descartes is forced to look elsewhere for the cause of these ideas. It is insufficient merely to posit the existence of a greater being than himself, for to do so does not solve the problem, but only leads to an infinite regress. Further, although Descartes conceives of himself as independent of material substance, he does not conceive of himself as self-caused.

It is clear from this that there must exist a most

[1]Ibid. p. 102.

perfect Being (i.e. God) to whom perfection, and hence Descartes' ideas of perfection, may be traced. Having already observed that mind and body are distinct, Descartes claims as well that they cannot exist together in God, for to co-exist in one subject requires dependency between them and, "...dependency is manifestly an imperfection".[1] Since God is, of course, perfect, it cannot be possible for Him to be composed of two distinct substances.

Those things which are imperfect, however, must exist dependently upon what is perfect, at least to the degree to which they possess some degree of perfection.

> "I judged however, that if there were any bodies in the world, or even any intelligences or other natures which were not wholly perfect, their existence must depend on His power in such a way that they could not subsist without Him for a single moment."[2]

Neither mental nor material substance then, can be absolutely independent due to their lack of perfection. It is clear, though, that they are independent of each other, for neither can account for such perfection as is found in the other.

As an alternative to this first proof of the existence of God, Descartes provides a second, lest anyone remain unconvinced of the certainty of His existence.[3] The idea of a perfect being which Descartes claims to have, includes the perfection of existence. Further, since the idea of God

[1]Ibid. p. 103.
[2]Ibid. p. 103.
[3]Ibid. c.f. p. 104-105.

possesses all those marks of certainty required for truth, it is evident that the idea of God as existing necessitates His existence, since it is a true idea and could only be a true idea if He existed.

The existence of God as a perfect Being and as Creator results in the occurrence of a problem for Descartes concerning the extent of our knowledge. Since God is (by definition) both omnipotent and benevolent, some explanation is required as to why He would create beings capable of error and sin. For Descartes, the solution to this dilemma requires a more complex understanding of our nature and of the extent to which we can know God.

Descartes deals with this difficulty in Meditation IV;

> "And certainly there is no doubt that God could have created me so that I could never have been subject to error; it is also certain that He ever wills the best, is it then better that I should be subject to err than that I should not?"[1]

In order to select one of these two alternatives it is necessary either to provide some reconstruction of God's motives in acting as He did, or simply to accept that, God having acted for the best and we being naturally prone to err, this state of fallibility must be the best because it is actual. According to Descartes, however, it is not possible to reconstruct the motives for God's actions because it is not possible to attribute anything to His nature at all, save

[1]Descartes, "Meditations on First Philosophy" in The Philosophical Works of Descartes, Vol. I, p. 173.

perfection. It is only to the consequences of His acts, i.e. creation that we may attribute value, and then only in virtue of the fact that they are consequences of God's acts and hence good.

> "...(I)t is self-contradictory that the will of God should not have been eternally indifferent to all that has come to pass or that ever will occur, because we can form no conception of anything good or true, of anything to be believed or to be performed or to be omitted, the idea of which existed in the divine understanding before God's will determined Him so to act as to bring it to pass."[1]

Since, for Descartes, God's actions depend solely upon His will, it is not possible to claim both that there exist constraints upon God's actions, and that He is omnipotent. We cannot then claim even that God <u>had</u> motives for His actions, indeed we must claim that He did not have any.

"...(S)upreme indifference in God is the supreme proof of his omnipotence."[2]

The supreme indifference of God places a more general restriction upon our investigation, beyond the consideration of whether there exists a contradiction in asserting that a benevolent, omnipotent Deity has created creatures capable of error. It is not possible, according to Descartes, to assert that anything happens as a result of some choice of God's;

> "...the species of cause termed final finds no useful employment in physical (or natural) things; for it does not appear to me that I

[1]Descartes, "Reply to Sixth Objections", Vol. II of <u>The Philosophical Works of Descartes</u>, p. 248.

[2]Ibidem. p. 248.

> can without temerity seek to investigate the (inscrutable) ends of God."[1]

Even granted that God's will has determined Him to act in certain ways, it is still not possible to attempt to presume things with respect to God. The infinitude of God's nature prevents any finite intellect from comprehending it. Goodness and knowledge, as known by finite intellects, are the result of God's will, to which we have no access. Thus we can rightfully judge only of things within creation and only from our perspective within it.

Questioning whether or not God has acted consistantly in making us liable to err, is not, for Descartes, something which can meaningfully be entertained. It is, however, possible for him to examine the source of our errors, insofar as it lies within our nature. Although our intellect, when employed according to the proper method, can discover the truth, it is finite and often deals with things in an inadequate manner.

While it is apparent that our intellect is limited in nature, Descartes wishes to claim that the same is not true of our will.

> "It is free-will alone or liberty of choice which I find to be so great in one that I can conceive no other idea to be more great; it is indeed the case that it is for the most part this will that causes me to know that in some manner I bear the image and similitude of God."[2]

[1]Descartes, Vol. I, p. 173.
[2]Ibid. p. 175.

It is as a result of the disparity between the capacity of reason and the range of will that we are capable, in Descartes' view, of falling into error. In the actual acceptance or rejection of some alleged fact or other it is the will which actually chooses, and it is capable of choosing even in those instances where its choice can receive no aid from a rightly conducted reason. Thus if we accept or reject something which has not been properly analyzed by reason, we are liable to commit an error.

As can be seen from this, though Descartes has shown how error is possible (in fact, how it occurs), his account of the correct method of reasoning presents us with the means by which we can avoid error. It is required only that we refrain from exercising our powerof will in all those cases which have not, or cannot, be properly considered, and we will always judge correctly.

What we can, in this way, subject our will to our intellect, ought not to be regarded as a suggestion by Descartes that we must in this manner restrict our freedom.

> "...(I)n order that I should be free it is not necessary that I should be indifferent as to the choice of one or other of two contraries; but contrariwise the more I lean to the one..., the more freely do I choose and embrace it. And undoubtedly both divine grace and natural knowledge, far from diminishing my liberty, rather increase and strengthen it. Hence this indifference which I feel, when I am not swayed to one side rather than to the other by lack of reason, is the lowest grade of liberty, and rather evinces a lack or negation in knowledge than a perfection of will; for if I always recognised clearly what was true and good, I should never have trouble in deliberating as

> to what judgement or choice I should make, and then I should be entirely free without ever being indifferent."[1]

Provided that constraint comes from its proper source, the intellect, there is, in Descartes' view, no loss of liberty involved. Indeed, within any individual, it appears that the more direction the intellect can give, by providing knowledge concerning something, the more freely can that individual act. Here the suggestion is that human will requires direction in order to function as freely as it can. The natural source for proper direction is the intellect, which alone has the ability to perceive the truth.

Thus it seems that, for the individual, Descartes' philosophy would have reason play a two-fold role. First, it is by means of reason that we can attain truth (through intuition and deduction). In consequence of this, Descartes structures his methods of seeking truth, and utilizing the truths thus discovered to obtain further truths, around these two functions of the intellect. Having secured, in this way, a reliable method of investigation, he is able to show, without making unfounded presumptions concerning God, how it is that we can avoid error in our judgements by subjecting our will to our intellect.

Although this would, in God's case, constitute an affront to His omnipotence, the same does not, in Descartes' view, hold true for creatures. It is this second function of

[1]Ibid. p. 175.

reason which is of most significance for us.

The will of limited beings, such as man, must, for Descartes, be provided with some direction, for we can act only within creation, and so may not do just as we please (though we have this ability). In this context, it is necessary that direction be given to the will if it is to function freely. Such direction can only be provided by the intellect and so, in our case, to be free (both to act and from error) is to be guided by the light of reason insofar as we can.

This summary of the Cartesian view is intended to show the nature of Rationalism, particularly its reliance on reason alone and the demand for an orderly, 'rational' methodology which follows from this. I have mentioned only those conclusions which are particularly relevant to my topic, but it is obvious that however admirable the enterprise, and despite the rigour of Descartes' thought (which space prevents me from doing justice to), his conclusions have not, by any means, the self-evidence which he desired for them.

There is, though, reasonable evidence that these conclusions are products of Descartes' method. Hence, dissatisfaction with any of them implies dissatisfaction with the Cartesian method, and it is by presenting Leibniz's objections to both aspects of Descartes' philosophy that I hope to elucidate Leibniz's own position.

Before beginning this task, however, we must first examine the modifications of Descartes' philosophy and the Rationalist innovations presented by Spinoza, for these too

will help to provide the background against which Leibniz himself can most easily be understood.

There arises, with respect to the task of presenting those aspects of Spinoza's philosophy which influenced that of Leibniz, a difficulty which has no parallel in the corresponding influence of Descartes. The source of this difficulty lies in the nature of Leibniz's understanding of Spinoza's views, or, more precisely, his possible lack of understanding of them. I broach this matter (which I shall argue is, for my purpose at least, primarily of historical importance) out of respect for the obvious complexity and depth of Spinoza's thought.

There is much in Spinoza's view as expresses in, e.g. The Ethics[1], which appears incomprehensible and which, as we shall see, was described as such by Leibniz. Those well-versed in Spinoza's thought may wish to deny that such incomprehensibility is an intrinsic feature of Spinoza's philosophy and rather, that to claim it occurs betrays a deficiency in the reader.

Be that as it may, I am not concerned primarily with the truth of Leibniz's critique of Spinoza per se, or with the justice thereby done to Spinoza's philosophy, but only with what we may plausibly deem Spinoza's influence upon Leibniz.

[1]B. Spinoza, The Ethics in On the Improvement of the Understanding, The Ethics, Correspondence, trans. R.H.M. Elwes, Dover Publications: New York, 1955. All citations of The Ethics will be included in the body of the text to avoid a distracting number of footnotes. These will be abbreviated by part and proposition numbers. E.g. for (Ethics I, Prop. XXV) read, "Ethics, Part I, Proposition XXV".

I am not, in general, at all concerned with how Leibniz's philosophy would have differed from what it is had he understood Spinoza differently, but only with Spinoza's actual influence, so far as I can discern it.

Proceeding to Spinoza's view itself, it seems appropriate to first point out the apparent similarity of Spinoza's method to that of Descartes'. For Spinoza, rational intuition provided the surest route to knowledge and deductive truths depend upon the truth of their premises. It will not do, however, to simply equate Spinoza's method with that of Descartes' and let the matter rest.

Just as the method of knowing places restrictions upon what can be known, predisposing the knower to a particular view of the world, so too, is the reverse true. That is, the sphere of things which are known, or can be known, places a particular value upon the concept of knowledge. For example, in no straight-forward way could Descartes claim to have <u>known</u> the colour of his desk, for the concept of colour available to him, <u>via</u> his method, was not one which was metaphysically primary, and hence not capable of 'knowledge' in its precise Cartesian meaning. A judgement about colour must, strictly speaking, be translated by Descartes into a statement about other entities (e.g. thinking and extended substance).

It will not do to equate the strict Cartesian concept of knowledge with any more ordinary sort of understanding of what it means to know. In the same way, despite the similarity between the methodologies of Descartes and Spinoza, it

is not sufficient to merely equate them. The actual difference will perhaps best be illustrated by a sketch of the content of Spinoza's metaphysic, for it will be, I think, quite obvious that some things 'known' by Spinoza were not and could not be 'known' by Descartes (or Leibniz either).

The thrust of my presentation of Spinoza's position will be directed toward providing a background sufficient to enable us to comprehend the full weight of a statement made by Leibniz, near the end of his life, in a letter to Louis Bourguet, "...He (Spinoza) would be right if there were no monads...".[1]

The whole of Spinoza's philosophy is founded upon his notion of 'substance' and it is necessary that we understand this notion as clearly as possible if we are to comprehend Leibniz's reaction to Spinoza. Spinoza's claim that there is and can be only one substance is a direct consequence of the nature of substance as he conceived it.

Spinoza defines substance as, "...that which is in itself, and is conceived through itself..., that of which a conception can be formed independently of any other conception" (Ethics I, Def. iv).

The two criteria which must be met by anything entitled to the name of substance are, for Spinoza, but different ways of stating the sole criterion of independence. Inde-

[1]G.W. Leibniz, Philosophical Papers and Letters, ed. and trans. L. Loemker, 2nd ed., D. Reidel Publishing Co.: Dordrecht, 1969, p. 663. Hereafter cited as 'Loemker'.

pendence is, of course, the characteristic of substance which makes it attractive in any philosophical scheme. The assurance that one's inquiry has at last reached bottom is provided for, without placing any too restrictive limits upon the nature of the solution. For Spinoza, however, that independence from any prior cause which characterizes substance is absolute. Here too, we can observe what amounts almost to an identification of ontology and rationalist epistemology. There exists here a special epistemological relation between what is in itself and our knowledge of it, presumably not to be found in the case of knowledge of that which has no true being of its own. That is, there is a linking of the manner of conception of substance with its ontological status. The nature of substance as independent of external support is mirrored by the independence of our conception of substance from all other thoughts.

Although we are thus provided with some insight into the relation between substance and our knowledge of it, we still have no indication of <u>what</u> it is that exists independently of all else.

With respect to Descartes, we can grasp somewhat more readily the actual nature of substance, because we are provided with an exhaustive list of the various types of substance: God, i.e. the one true substance; thinking substance, and extended substance (see above, p. 20-22) and are given an account of what is essential to each of them. Of most significance here is the fact that Descartes' two

created substances (thinking substance and extended substance) can be conceived independently of each other, but not as absolutely independent, or requiring nothing outside of themselves for their existence. It is to some degree as an explanation of the causes of created substance that God (the perfectly independent Being upon whom all others depend) is introduced. Although thinking and extended substances are not perfectly independent, they are conceptually independent of each other and so require, for Descartes, some form of independent existence, which is provided for them by their status as created substances.

Spinoza may be regarded as attempting to deal with two difficulties of Descartes' view in presenting his own account of the nature of things. First, Spinoza obviously rejects Descartes' conception of imperfect substances as 'substances' which lack that independence explicitly demanded by Spinoza. At the same time, however, it is also apparent that thought and extension <u>are</u> independent of each other, at least in conception. With respect to the development of the concept of substance by the Rationalists, Spinoza can, I think, be regarded chiefly as attempting to reconcile the absolute dependence of thought and extension with their independence of each other.

According to Spinoza, nothing exists but substance (or God) and the modes of substance (<u>Ethics</u> I, Prop. IV, Proof). Spinoza defines mode as "the modifications of substance, or that which exists in, and is conceived through, something

other than itself." (Ethics I, Def. vi).

It is clear then, that Spinoza quite explicitly confines the sphere of existents to substance or God and what is, in some way, a modification of substance. (Modes do not, of course, have any true being of their own, for this is precluded by their nature as modes.) As our interest here is only in a general sketch of Spinoza's view, I shall not deal with the fully developed notion of modes in Spinoza, but only with those modes corresponding to what we may regard as objects in the world.

> "Individual things are nothing but modifications of the attributes of God, or modes by which the attributes of God are expressed in a fixed and definite manner." (Ethics I, Prop. XXV, Cor.)

Apart from the fact that substance may be conceived through itself and that modes (i.e. 'things') cannot, we have as yet no clue as to how they are to be conceived at all. It is here that the notion of an attribute comes into play, defined by Spinoza as "...that which the intellect perceives as constituting the essence of substance." (Ethics I, Def. v).

As examples of attributes, Spinoza cites thought and extension (Ethics II, Prop. I and II) and thus appears to have incorporated all of the vital components of Descartes' metaphysics into his own. It would, however, be a grave error to attempt to incorporate concepts understood in a Cartesian sense into the metaphysics of Spinoza.

It is true, for Spinoza, that God is an infinite thinking Being and that mind is a finite or limited thinking

thing, but thinking is here no longer understood in the same sense as the Cartesian cogito.

In the first place, it is not possible, because of the fundamental ontological distinction between God and man (regarded as a mode), to attribute any quality to both of their natures without equivocation. These two attributes described by a single term, "...would have nothing in common between them but the name; there would be about as much correspondence between the two as there is between the Dog, the heavenly constellation, and a dog, an animal that barks." (Ethics I, Prop. XVII, Note).

At first glance, this seems to bring us no closer to an understanding of any of the key concepts of Spinoza's philosophy. To claim that God may be regarded as a thinking thing only insofar as 'thinking' can be here regarded as having almost no connection with thought as ordinarily understood seems, at best, unilluminating.

Spinoza does, however, attempt to provide some clarification of his position. Our intellect is, according to him, "...posterior to or simultaneous with the things understood," (Ibid), while God as true substance is prior to everything that is. Our understanding requires that some object be given in order that we may understand it, but this is not required by God's understanding for it is, in fact, God who does the giving.

This, I think, provides some indication of the nature of thinking considered as an attribute of God and as expressed

by a particular mode of that substance--an individual mind. Human understanding may be regarded as a limitation of the divine understanding or rather of God considered as a thinking thing. God's thought is not only unlimited, but creative. God creates what He knows and, for Spinoza, with respect to God conceived of as constituted by thinking, creation and knowledge are the same activity. For us, however, creation is a prerequisite of knowledge and such creation does not depend upon us. As modes of substance, we are not responsible even for our own existence.

It must be remembered that in discussing the relationship between man and God with regard to their respective understandings, we cannot presume to have incorporated the entirety of their natures into this account. God has been presented here only as that whose essence is perceived as constituted by thought.

While Spinoza is willing to admit the correctness of such a perception and indeed would claim to be capable of giving a complete account of creation in terms of thought, there is one vital aspect of the nature of substance (and hence of its modes) which this account does not grasp. This is that, while we may regard substance as constituted essentially by thought (because it is), there are also other ways of regarding it, which are equally correct. Thus we can, with equal justice, regard substance as constituted by the attribute of extension and the definite modes of substance as extended things. It is necessary to keep any consideration of sub-

stance in terms of either of these two different attributes strictly separate. As mentioned above, the conception of either one contains nothing in common with the other and attributes, as constituting the essence of substance are conceived through themselves (Ethics I, Prop. X).

Before examining Spinoza's account of the world considered as composed of extended things, we must first examine one further aspect of things considered under the attribute of thought. Having seen that human intellect is to be regarded as a particular expression of substance itslef, it seems appropriate at this point to turn to a brief examination of the nature of thinking as Spinoza views it.

From the point of view of intellect alone, regarded as a sort of entity separate from extended things, it might appear that the sole objects of thought must be ideas or things of a peculiarly 'mental' nature, amenable to treatment in the unextended realm, for only those things which can be regarded under the same attribute can have any relation to one another.

Spinoza defines idea as, "a mode of thinking--namely, the very act of understanding" (Ethics II, Prop. XLIII, Note I).

The act of understanding must, of course, be related differently to God, or substance, than it is to individuals. God's understanding is, for Spinoza, to be conceived of as creating what it understands. Human understanding is, conceptually at least, consequent upon what is understood.

Mind regarded thus as dependent upon ideas must also, for Spinoza, be identified with, or constituted by, an idea.

> "The first element which constitutes the being of the human mind is the idea of some particular thing actually existing." (Ethics II, Prop. XI).

Here again the separation between substance and mode must be borne in mind. There is a fundamental sense in which every human mind is an idea which God has (that is, creates) and at the same time, we are to conceive ourselves as the understanding of an existing body (as it turns out--our body (Ethics II, Prop. XIII)).

Perhaps most important for understanding the complex relation between man and God, even considered under a single attribute such as thought is that in Spinoza's system we are, so to speak, trapped by our perspective. When we speak of God or substance conceived through the attribute of thought and of ourselves as particular modes of thinking substance or individual minds, we must remember that our account is given from the point of view of a particular mode conceived through a particular attribute. While there may be some similarity between one mode's understanding of the nature of reality and some other mode's, we must always be aware of the fact that our understanding of the way things are is not at all like God's understanding of what is.

It is apparent then that there exists a tension in Spinoza's metaphysic between mode and substance, or man and God. The independence of our being is purely illusory and our knowledge even of that fact is hampered by our depending upon substance.

Spinoza gives a parallel account of reality in terms of substance conceived of as extended and modes regarded as extended things.

As I hinted above, the object of the idea which constitutes the human mind is that mind's body. It should not be supposed that Spinoza thus falls into the dualism of Descartes. Mind and body are, in Spinoza's account, merely the same mode of substance, differently conceived.

For Spinoza, the individual person is to be understood as a single mode of substance, regarded under the attribute of extension, as a body, or under the attribute of thought as a mind. There is no substantial duality to raise difficulties, nor even two created <u>things</u> to be somehow connected, merely a single mode of substance regarded now under the attribute of thought, now under the attribute of extension.

The substantial unity of mind and body permits Spinoza to outline a perfect correspondence between events in the mental realm and those in the physical. There is, in any given case, only one event, which can be regarded from either of two different perspectives.

What we may regard as the Spinozistic dualism of substance and mode has implications as well for his view of the nature of freedom. Freedom also has two aspects, the first in its relation to substance or God, the second as it relates to particular modes of substance or men.

> Spinoza states, "...men are mistaken in thinking themselves free; their opinion is made up of consciousness of their own actions, and

> ignorance of the causes by which they are conditioned. Their idea of freedom, therefore, is simply their ignorance of any cause for their actions. As for their saying that human actions depend on the will, this is a mere phrase without any idea to correspond thereto." (Ethics II, Prop. XXV, Note).

The above quotation suggests, first, that the ordinary conception of freedom, presumably as making possible unconditioned acts, is completely illusory. Were we to realize the causes which condition us, we would, Spinoza asserts, find that there are no acts which arise without prior causes.

What is, however, even more devastating to the common conception of free will is Spinoza's claim that such a faculty does not exist at all. The mind, in Spinoza's view, is not composed of intellect, will, memory, etc., but of ideas in the sense of acts of understanding.

These ideas contain within themselves an element of affirmation or negation, but this is a feature of the idea itself and not some separate claim about it. For example, of the claim that it is true that a triangle contains three angles equal to two right angles, Spinoza states, "...this idea... can neither be nor be conceived without this affirmation, therefore, this affirmation belongs to the essence of the idea of a triangle and is nothing besides." (Ethics II, Prop. XLIX, Proof).

Spinoza's view, then, is such that it is not even permissable to assert the existence of a faculty of will, much less argue that such a faculty is free or unconditioned. It can be seen from this, at least to some extent, just how fun-

damental the concept of 'idea' is for Spinoza. Ideas, for Spinoza, are acts of understanding containing as an essential feature the affirmation or denial of their contents.

Granted that Spinoza excludes unconditioned act and the faculty of will from his philosophy, it is clear that human freedom can pertain neither to physical acts nor to judgements. It must be remembered though that, for Spinoza, people are not independent beings, but particular modes of substance. It would, then, be entirely incongruous for him to have included freedom as it is naively conceived.

For Spinoza, human freedom consists in the attaining of an adequate idea of God or substance. Just as the mind is the idea of the body and changes as the body changes (since, rightly understood, they are the same thing), so too is the reverse true. An increase in our understanding is the freeing of the body from passions or affections.

A complete understanding of substance belongs to substance alone, for only the infinite can comprehend the infinite. To the extent that we attain an adequate understanding of substance, we become that substance and not merely a mode of it. Increase in knowledge is a companion, in Spinoza's view, to the diminishing of our limitations which are a distinguishing feature of modes of substance from substance itself. Thus Spinoza enjoins us, "...to act solely according to the decree of God, and to be partakers in the Divine nature, and so much the more as we perform more perfect actions and more and more understand God." (Ethics II, Prop. XLIX, Cor. Note).

As our understanding of substance increases, so too does our freedom, for we are constrained by being limited and an increase in our understanding reduces our limitations and hence the constraints upon us.

God, or substance, is thus, in Spinoza's view, truly and absolutely free, for substance is, as we have seen, unlimited, and limitation is the source of constraint. As Spinoza puts it, "God acts solely by the laws of his own nature, and is not constrained by anyone." (Ethics I, Prop. XVII).

The freedom of substance consists solely in its acting out of the necessity of its nature. It is not, however, immediately evident what that nature is. We have seen that Spinoza regards modes as expressions of substance, and attributes as constituting its essence, but it is not apparent from this what we must understand as the laws of substance's nature.

By way of removing this difficulty, we may examine Spinoza's claim that, "all things are predetermined by God, not through his free will or absolute fiat, but from the very nature of God or infinite power." (Ethics I, Appendix).

Spinoza thus differs from Descartes, who related God's freedom to His will (at the expense, it may seem of His other attributes). For Spinoza, absolute freedom is to be found in the nature of God conceived of as unlimited or infinite power. Substance is in no way affected by anything external to it (for there is nothing external to it), nor is it

in any way passive. Freedom is thus, for Spinoza, an absolute infinite aspect of the nature of substance and may be regarded as the unrestricted ability or power to exist and act of substance itself.

It is against this immediate background that the philosophy of Leibniz arose. The reliance upon reason alone and the requirement for a rational methodology which we have seen in the philosophy of Descartes exerted a powerful influence upon Leibniz (and upon Modern Philosophy in general). In Spinoza's Ethics, this type of methodology appears in the guise of a geometrical presentation.

More important for an account of Leibniz's view of the nature of freedom is the fact that, in the writings of both Descartes and Spinoza, freedom appears not primarily as a positive feature of the universe, but as a bare negation. Freedom for them consists in the absence of constraints both upon the individual and upon God or substance. Further, despite this freedom, that which acts at the most fundamental metaphysical level, i.e. God, does so, not with any degree of randomness or as a result of an uncoerced choice, but from the necessity of its nature. Though not externally constrained, God is entirely constrained by His nature. Corresponding to this, at the level of the human individual, freedom from such external constraints as they are subject to leads to a knowledge which itself, though not externally, necessitates all action.

To a great extent, the modifications to this concept

of freedom by Leibniz spring from the metaphysics which he developed, a metaphysics which is, in many significant ways, a response to those views which I have sketched here. And, as I have attempted to show, particularly with respect to Descartes, the relationship between metaphysics and the methodology which permits its discovery (or, if you like, construction) is one of fundamental importance.

It is to the methodology of Leibniz and the metaphysics which he produced that I shall now turn.

II

LEIBNIZ'S METHODOLOGY

As the previous chapter clearly shows, the similarity which exists among the Rationalists is to be located in their approach to the problems involved in gaining knowledge of the nature of the world. If they may usefully be grouped together as sharing a particular philosophical position, that position must not be viewed as an agreement about the ultimate nature of the real in any specific sense, but only in their struggle to gain certain knowledge by the use of reason alone. Even this statement is perhaps too far-reaching. Given that the method of acquiring knowledge and that which is knowable exert a restricting influence, each upon the other, the initial Rationalist faith in reason is capable of permitting those who share it to arrive at widely varying metaphysical views. This fact is all the more perplexing, given their agreement that there is but one proper tool by which this discovery is to be made, that is, reason, unaided and unfettered by the other human faculties.

It would seem, then, that one task facing any Rationalist thinker following after Descartes and Spinoza is that of presenting his view with a clarity and comprehensiveness that permits of no major modification by anyone who would presume, as well, to adhere to the Rationalist approach to philosophy. In this respect, the demands upon Leibniz were very great indeed. His success may be superficially judged from the fact that he was the last major proponent

of Rationalism, just as his failure may be judged by the fact that he was not the last philosopher.

Before advancing to Leibniz's view itself, I think that it is first advisable to insert a brief reminder of the scope of Leibniz's investigations. Reason is, for Leibniz, the fundamental ordering principle of everything that exists or even could exist. Consequently, no field of inquiry is barred to the Rationalist. It would, thus, be deceptive to claim, as Bertrand Russell does, that, "...Leibniz's philosophy was almost entirely derived from his logic..."[1]

I do not question the claim that Leibniz had a sincere and abiding interest in logic, but it is, I think, particularly dangerous to regard him as primarily interested in one field of investigation. As will be made clear below, Leibniz was at least as much influenced by his work in physical dynamics as by his logical studies.

It is a commonplace that Descartes and Leibniz were concerned with scientific investigations and the attendant need for precise quantification in experimental studies (and, consequently, with the need for a mathematics adequate to measure and describe all natural phenomena). Further, they were concerned with scientific investigation as scientists and philosophers, or more accurately, as men for whom the distinction between those two disciplines did not exist in anything like its present form. There is to be found then, in

[1]B. Russell, A Critical Exposition of the Philosophy of Leibniz, 2nd ed., George Allen & Unwin, Ltd.: London, 1937, p. v.

Leibniz's philosophy (and that of Descartes as well); a concern for precision and practical application not commonly associated with Rationalism and its reliance upon reason alone.

Leibniz is, in fact, quite explicit regarding the necessity of attending to the practical aspect of knowledge:

"Wisdom is a perfect knowledge of the principles of all the sciences and of the art of applying them."[1]

The above statement indicates that for Leibniz, the attempt to gain wisdom is the broadest possible task. Not only does it require theoretical knowledge of all areas of investigation, but also the proper manner in which to utilize such knowledge. The requirement for a knowledge of principles which have, potentially at any rate, a broad range of applicability, plus the demand for knowledge of precisely when and how to apply such principles to particular situations we may regard as a general indicator of the object of Leibnizian Rationalism.

In order to attempt so wide a variety of investigations, all presumably culminating in wisdom itself, it is evident that Leibniz's method of investigation must be at once so general as to leave nothing out and yet be precise enough to deal with any particular problem. In order to practise so all-encompassing a method, Leibniz claims that three different arts

[1]G.W. Leibniz, "On Wisdom" in Leibniz: Selections, ed. Philip P. Wiener, p. 77-81; Charles Scribner's Sons: New York, 1951. P. 77. Hereafter, Wiener.

must be mastered: those of judging, discovering what is unknown, and recollecting.[1] Although it might appear from this that Leibniz's method lacks the sort of unity so clearly discernible in Descartes' writings, it remains to be seen whether or not this is in fact the case.

According to Leibniz, the art of judging or correct reasoning consists in obeying three rules:

> "1. We must never recognize as true anything but what is manifestly indubitable...
> 2. When there does not seem to be any means of arriving at such an assurance, we must be content with probability while waiting for greater light...
> 3. To derive one truth from another we must keep uninterruptedly to a certain chain..."[2]

As a means of facilitating our recognition of the indubitable, Leibniz suggests that we proceed as though we wished in fact to support the contrary.[3] The contrary of what cannot be doubted must, in Leibniz's view, be more than false. The contrary of falsity is truth, and mere truth is definitely capable of being doubted. Leibniz is, after all, concerned here with showing how it is that we may recognize truth, i.e. gain knowledge. Considerations of whether or not something can be doubted relate most importantly to our knowledge of the truth or falsity of the matter being examined. Whatever is contrary to the indubitable must therefore not appear as simply false, but as impossible or self-contradictory. The key to certainty is thus, for Leibniz, found in the fact that the

[1] Ibid.
[2] Ibid. p. 77-78.
[3] Ibid. p. 77.

opposite of absolute certainty is not merely uncertainty (or even falsity), but self-contradiction.

The reliance upon self-contradiction as the criterion of falsity (and thus upon the contrary of any self-contradiction as a necessary truth) indicates the essentially logical basis of this aspect of Leibniz's epistemology. The depth of Leibniz's conviction is revealed in his criticism of Descartes' view that even such truths as these are dependent upon God's will.

"Who would say that A is not non-A because God has decreed it?"[1]

This can usefully be contrasted with Descartes' suggestion[2] that we ought to regard everything doubtful as false. While Leibniz does not reject this suggestion outright, he does point out, first that Descartes' method is by no means perfect, and second, that Descartes has merely replaced one prejudice (that what is doubtful is in fact true) by another prejudice (that what is doubtful is in fact false), rather than by the truth (e.g. that which is doubtful is in fact doubtful).[3]

(This is, of course, precisely what Descartes intended to do. He hoped that the two opposing prejudices would cancel each other out and leave the mind in a position to judge the matter at hand unbiasedly.)[4]

[1]Leibniz, "Letter to Arnold Eckhard" (in Loemker, pp. 177-181), p. 181, n.7.

[2]See e.g. Principles of Philosophy, Part I, Article 2.

[3]Leibniz, "Critical Thoughts on the General Part of the Principles of Descartes" (in Loemker, pp. 383-410), p. 384.

[4]See op. cit. "Meditations on First Philosophy", p. 148.

Having thus, at the outset, presented his own standard of indubitability, a topic of central importance to Descartes, Leibniz proceeds immediately to present a second rule to guide us when that standard appears unattainable, a rule which would be unthinkable for Descartes.

In the first place, the suggestion that we may be unable to ascertain the certainty of something would imply some deficiency in the Cartesian methodology, or at least in those who make use of it. Secondly, reliance upon 'probability' is precisely what Descartes regarded as the exercise of the will in those matters which are beyond the guidance of the intellect; that is, nothing other than the source of all human error.

It might, of course, be conjectured that Leibniz introduced the judging of probability as a useful element in reasoning as a result of the fact that Descartes' requirements for reasoning were simply too stringent to be practical. Such a conjecture would, however, imply that reliance upon reason is of limited use and that Rationalism is a merely ideal approach to the problems of science and philosophy, which cannot be successfully employed without relaxing its standards. If this were his belief, Leibniz would be a Rationalist in name only and not in fact.

That Leibniz's introduction of probable knowledge is rather a response to manifestation of a thorough assessment of the nature of what is and is not knowable, I will discuss below. For the moment, I shall only note that Leibniz was aware that merely probable knowledge cannot lead to certainty

in any deduction and that the conclusion of an argument from probable premises, "...will retain the imperfection of its source...".[1] Thus, although probable arguments may in some circumstances be unavoidable, it is always necessary to bear in mind that they can lead to only probable conclusions.

Leibniz offers no explanation with respect to the third maxim of reasoning, that deduction be continuous. This requirement does, however, parallel that of Descartes' (see above, p. 13-14) and appears to reflect a similar lack of confidence in what we ordinarily regard as our powers of recollection.

The art of reasoning or judging for Leibniz thus consists in the criterion for recognizing indubitability and the suggestion that we make do with the probable when such certainty is unattainable. As such, the art of reasoning is concerned primarily with the recognition of the certain and how to preserve it in our deductions. The possibility of such recognition and our ability to preserve certainty in our deductions depends, of course, upon principles not only of epistemological but of metaphysical importance. In the light of the broader significance of these principles, it is, I think, appropriate that they not be introduced until we are in a better position to grasp their full significance.

The art of discovery is concerned with the more basic problem of discovering truth; that is, with the problem of how we are to increase our knowledge and thus gain material

[1]Op. cit., "On Wisdom", p. 78.

for our deductions. The first maxim of this art states that:

> "In order to become acquainted with a thing we must consider all its prerequisites, that is everything which suffices to distinguish it from any other thing. This is what is called definition, nature, essential property."[1]

It is necessary here to digress from merely outlining the general nature of Leibniz's method and provide some account of the meaning which he gives to the terms 'knowledge' and 'definition'.

One source of Leibniz's discontent with Cartesian methodology may be found in what Leibniz viewed as an imprecision in Descartes' language (or the concepts so represented). It was thus a part of Leibniz's task to present his own views as exactly as possible, thus enhancing, in his own eyes at least, the importance of finding proper definitions.

Leibniz was dissatisfied with Descartes' criteria of 'clearness and distinctness' as signs of certainty and attempted to define them with greater rigour:

> "When I recognize one thing among others, but cannot say in what its differences or properties consist, my knowledge is <u>confused</u>. In this way we sometimes know clearly, and without having a doubt of any kind, if a poem or a picture is well done or badly, because it has a certain 'something I know not what' which either satisfies or repels us. But when I can explain the criteria I use, my knowledge is called <u>distinct</u>."[2]

It is obvious from the above quotation that definitions for Leibniz will depend upon distinct knowledge. Distinct

[1] Ibid. p. 78.

[2] "Discourse on Metaphysics", <u>Loemker</u>, pp. 302-328, Sec. 24, p. 318-319.

knowledge in Leibniz's view depends on explicit criteria for recognizing something; that is, a consideration of its prerequisites.

While it is obvious that such considerations are an improvement on bare recognition, it is also quite apparent that one could have distinct knowledge of more than one sort.

"...(D)istinct knowledge has degrees, for usually the concepts which enter into the definition would themselves need definitions and are known only confusedly."[1]

It seems then, that the first rule of Leibniz's art of discovery will require some supplementation. Clear and distinct knowledge of something (in Leibniz's sense) may be sufficient to distinguish it from other things, but the degree of completeness of the definition appears dependant upon just how distinct that knowledge is. It is therefore necessary to continue the examination of the object by attempting to find the criteria which provide a foundation for the criteria used in the first instance. Leibniz's second rule is thus that:

> "After we have found a means of distinguishing it (i.e. the thing which we wish to know) from every other thing, we must apply the same rule to the consideration of each condition or prerequisite entering into this means and consider all the prerequisites of each prerequisite. And this is what I call true analysis or distribution of the difficulty into several parts."[2]

Leibniz's art of discovery or true analysis obviously corresponds quite closely to Descartes' method of analysis.

[1] Ibid.

[2] Wiener, p. 78-79.

There are, however, some differences evident here which are, to some extent at least, significant. Leibniz terms the end product of analysis adequate knowledge,[1] and there is, in his procedure, not only a concern for order in progressing from the complex to the simple, but also an explicit recognition of each step made clear by labelling each different degree of knowledge. This is evident from the third rule which Leibniz gives:

> "When we have pushed analysis to the end... and finally have come to considering a few natures understood only themselves without prerequisites and needing nothing outside themselves to be conceived then we have arrived at a perfect knowledge of the proposed thing."[2]

Adequate or perfect knowledge in Leibnizian analysis appears to be very much like intuitive knowledge in Cartesian analysis and, at least with respect to the object of such knowledge, the parallel is evident. There is, however, a further feature required by Leibniz before adequate knowledge can be termed intuitive.

> "4. When the thing merits it, we must try to have this perfect knowledge present in our mind all at once, and that is done by repeating the analysis several times until it seems to us that we see it as a complete whole in a single act of the mind. And to obtain that result we must observe some graduation in the repetition."[3]

To simply equate adequate or perfect knowledge with intuitive knowledge would, I think, result in a confusing of Leibniz's view. Although Leibniz does term adequate knowledge

[1] Op. cit. Loemker, p. 318-319.
[2] Wiener, p. 79.
[3] Ibid.

grasped at once intuitive (see e.g. "Discourse on Metaphysics", Sec. 24).it should not be assumed that intuition for Leibniz is exactly similar to intuition for Descartes.

In the first place, Leibniz does not seem overly concerned about possessing intuitive knowledge. It is presented as differing from adequate knowledge only in the manner of its being known; that is, in a single act of mind rather than many. For Descartes, this manner of knowing was, in fact, the basis for knowledge, but Leibniz appears unconcerned with such considerations. However, Leibniz is concerned with the problems posed by imperfections in our ability to remember (see above p. 51) and he does claim that it is necessary to repeat the steps of the analysis several times in order to grasp them intuitively.

It is obvious though, that Leibniz does not consider this procedure to result in true intuitive knowledge. Although "it seems to us" that our knowledge is intuitive, one gets the feeling that Leibniz regards this as an instance of psychological self-deception bearing only a superficial resemblance to actual intuition, which he claims is "very rare".[1]

Still, Leibniz does enjoin us to attempt to simulate an intuitive grasp of something when the object 'merits' it. Whether this merely advises us not to waste our time upon matters of only limited relevance to more basic problems,or relates rather to some as yet undiscovered epistemological consideration remains to be seen. Leibniz, like Descartes, places a fair amount of emphasis on the improvement of memory

[1]"Discourse on Metaphysics", Sec. 24.

by exercising it at every opportunity, as indeed constant practice of the method itself is required of those who would become proficient in its use. This suggests at least some grounds to suspect that the merit of the object known does not relate to its content per se, since any object is to some degree worthy of analysis, but to some other feature of it.

At least a part of the solution to this difficulty is revealed by Leibniz's choice of name for non-intuitive knowledge of the same object. He calls it adequate or perfect and suggests[1] in the fifth rule of discovery that the fact that the analysis has been completed and that we can predict any occurance resulting from the recombination of the prerequisites is sufficient.

Further, he suggests not only that it is often enough to have done the analysis, without attempting to make it intuitive, but that it is not always necessary to complete the analysis:

> "It is very difficult to carry through an analysis of things, but it is not so difficult to complete the analysis of truths of which we have need. Because the analysis of a truth is completed when its demonstration has been found, and it is not always necessary to complete the analysis of the subject or predicate in order to find the demonstration of the proposition. Most often the beginning of the analysis of a thing suffices for the analysis or perfect knowledge of the truth which we know of the thing."[2]

[1] Wiener, p. 79.

[2] Philosophical Works of Leibniz, 2nd ed., trans. with notes G.M. Duncan. Tuttle, Morehouse & Taylor Co.: New Haven, 1908, p. 297. (The text of this passage in Wiener has been abridged).

It should be noted that Leibniz shifts here from discussing things, whose analysis is difficult, and has begun discussing truths, that is, true propositions. The truth of a proposition does not require a complete analysis of the thing which is the subject of the proposition in order to be demonstrated. Leibniz, quite early in his career, adopted a correspondence theory of truth and seems to have adhered to it throughout his life. His concern with the discovery of truth and his recognition of our need for symbols of some sort in thinking resulted in his paying some attention to the relationship between language and the world it represents:

> "...(E)ven though characters are as such arbitrary, there is still in their application and connection something valid which is not arbitrary; namely a relationship between them and things, and consequently, definite relations among all the different characters used to express the same things. And this relationship, this connection is the foundation of truth."[1]

It is clear then, that for Leibniz, in order to demonstrate the truth of a proposition, it is sufficient to show that the relationship between the subject and the predicate corresponds to the relations of the things themselves. It need not always be required of us to perform a complete analysis of a particular relation, and Leibniz indeed suggests that, at least with respect to our knowledge, our analysis need not progress too far in order to provide us with the requisite assurance of certainty. For example, with respect to a proposition such as 'All bachelors are men', it is sufficient to

[1]"Dialogue on the Connection Between Things and Words" in Wiener, pp. 6-11, p. 10.

analyze our definition of 'bachelors' into the two complex components 'unmarried' and 'men' in order to ascertain the truth of the proposition. Although the term 'men' represents a complex thing or group of things, it is certainly not necessary to enter into a complete analysis of it in order to ascertain the truth of the above proposition.

Having presented the essentials of his method of analysis, along with some suggestion that we need not always carry it through to its final conclusion, Leibniz goes on to provide further clues as to how his method may best be put into use. He asserts that in practising this method we should begin with relatively simple objects, such as mathematical concepts[1] and advance thence to more difficult things. There is more involved in this gradual increase in difficulty than a desire to provide for an easy initiation of the beginner into the intricacies of actual practice.

> "We must ascend in order, both by going from easy to difficult things and by trying to discover some progression in the order of our thoughts for the sake of having nature itself as a guide and guarantee."[2]

As with Descartes (see above p. 51), the importance of order in method is emphasized by Leibniz. Further, what was to some extent implicit in Descartes' presentation is made explicit here by Leibniz. The order in our thought represents, or corresponds to, the order of nature itself. The ultimate prerequisites of some concept, arrived at in our analysis of it,

[1] Wiener, p. 79.
[2] Ibid. p. 80.

correspond to the actual constituents of the object, at least in so far as there is an exact isomorphism of relations between them. It is, then, evident that for Leibniz, the power of reason enables us to grasp in some way the actual nature of the world, in a manner not equalled by merely sensible investigations.

The possibility of such access to the true foundations of reality, and the belief that such foundations consist of unanalyzable simples which are merely combined to create objects of greater or lesser complexity led Leibniz to suggest that we make a list of such basic concepts as our analyses lead us to them[1] and that, having acquired this list:

> "...we shall be ready to begin a priori to explain the origin of things starting from their source in a perfect order and from a combination or synthesis which is absolutely complete. And that is all our soul can do in its present state."[2]

Leibniz's art of discovery plainly consists of both analysis, which I have already discussed, and synthesis, or recombination of the products of analysis. Thus, for Leibniz, it is possible to conduct our investigations of the foundations of things (even, to some extent, scientific investigations) a priori.

More importantly, however, is the starting point of these investigations, i.e. "from their source in a perfect order". It is not evident in just what sense Leibniz intends the term 'perfect' in this context. Bearing in mind his claim

[1] Ibid.
[2] Ibidem.

that the order of analysis corresponds to a natural order, as presumably the recombination of primitive concepts which constitutes synthesis, it might appear that Leibniz is here equating the perfect order with the order of nature. Whether or not this is merely a case of the unconscious application of value judgements to matters of purely objective scientific investigation I will examine when I come to speak of Leibniz's epistemology in the broader context of his philosophical view as a whole.

The third part of Leibniz's method, the art of recollection, consists mainly of rules of thumb and techniques for improving the memory, and as such, does not in general concern the present topic. Leibniz does recommend that we carry with us a written copy of "...what is most necessary and most usual...",[1] indicating at least a confidence that we can correctly copy out what we cannot trust ourselves to remember.

There is also a further clue to the basis of Leibniz's epistemology suggested when he advocates the use of aids to our memory not directly or naturally connected with that which we wish to recall. Such aids are of use:

> "...(w)hen there are truths or familiar facts in which the natural connection of the subject with its predicate is not known to us, as happens with matters of fact and truths of experience..."[2]

As we have seen, the 'natural connection' between things, reflected in the relations of subject and predicate,

[1] Ibid. p. 81.
[2] Ibidem.

is precisely what is discovered by true analysis. Leibniz now informs us, merely in passing, that there is a class of things which cannot be analyzed completely, and further, that this class of things is comprised of "matters of fact and truths of experience".[1]

Leibniz thus excludes at least some part of the experienced world from the scope of his method of analysis. This sheds some light upon his claim in the presentation of the art of reasoning that we must sometimes be content with probability. Clearly, if certain empirical matters cannot be analyzed, it would be nonsensical to insist upon not judging about them until we can attain complete certainty.

Still, the development of the analytic method, enabling us to conduct our investigations a priori, solely by the use of reason, must be in some way applicable to our experience.

In order to make clear precisely the grounds for and the nature of Leibniz's restriction of his method, it is necessary to further elaborate upon Leibniz's doctrine of truth. As the view of truth which Leibniz presents is closely related to his metaphysics, it will be necessary to go beyond, to some degree, questions solely of methodology. Although Leibniz wrote a great deal on metaphysical topics, the two most concise and thorough statements of his view are found in the "Discourse on Metaphysics"[2] and the "Monadology"[3] and it is chiefly to

[1]The full import of this claim will become much clearer in the light of Leibniz's view of the nature of truth. See below, p. 67-72.

[2]Op. cit. (see p. 52, n. 1)

these two works that I shall refer.

Although I have presented the procedure by which Leibniz claims that truth is to be discovered and reasoned about, and suggested certain parallels with Cartesian methodology, Leibniz's own justification for his method has not yet been examined. In the "Monadology", Leibniz distinguishes two principles upon which all reasoning is based:[3]

> "Our reasoning is based upon two great principles: the first is the principle of contradiction, by virtue of which we judge that false which involves a contradiction and that true which is opposed or contradictory to the false...; and the second the principle of sufficient reason, by virtue of which we observe that there can be found no fact that is true or existent, or any true proposition, without there being a sufficient reason for it being so and not otherwise, although we cannot know these reasons in most cases..." (M. Sec. 31,32)

As mentioned above (see pp. 48-49), contradiction is the standard by which Leibniz judges certainty. One would expect the principle of contradiction to find employment not merely in matters of judgement, or reasoning, but wherever we might expect to encounter certainty, especially at the conclusion of a complete analysis.

Although this topic is not raised in the "Monadology", Leibniz does speak of it in the "Discourse on Metaphysics" when discussing the nature of definition. There are, in fact, four different types of definition discussed by Leibniz, corresponding to the four different types of knowledge which we have

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[3] (from p. 61) "Monadology" in Loemker, p. 643-652 (All further references to the "Monadology" will be abbreviated to M. and the paragraph number.)

already discussed. It is, however, only with respect to the first sort, that is, nominal definition (which corresponds to clear but confused knowledge) that the existence of a contradiction is in question.

> "I call a definition nominal when it can still be doubted that the defined concept is possible.... As long as we have only a nominal definition, we cannot be sure of the consequences drawn from it, for if it concealed some contradiction or impossibility, we could draw conflicting conclusions."[1]

Although Leibniz uses the principle of contradiction as a means of testing for certainty, it appears that between the certain and the contradictory he wishes to place the possible, and oppose it in some way to the contradictory. Clearly, however, there is at least one sense of the term 'true' which is consistent with possibility. Insofar as the various qualities or attributes of some object can be related to each other, without contradiction, as long as the concept of the object represents a possible set of relations (e.g. the old, red chair) then it is a 'true' object. Similarly, a contradictory object, one containing incompatible qualities, would be 'false' (e.g. the old, new chair). Clearly, not every possible state of affairs is an actual one, and simply because a statement represents a possible state of affairs it does not follow that that state has or will occur, merely that it is, in fact, a possible state.

The principle of sufficient reason, does not, like the principle of contradiction, give a criterion of truth or

[1] Op. cit. "Discourse on Metaphysics", Sec. 24.

some guide for reasoning. Rather, it consists in the more general claim that, wherever there in fact is a truth of some sort, it is possible, at least in principle, to discover the reason for that particular truth being just as it is, and not otherwise.

The principle of sufficient reason may be taken as the foundation of Leibniz's Rationalism. The belief that there must always be a reason for why things are just so and that these reasons can, at least to a great extent, be discovered by the use of human reason are certainly central tenets of Leibniz's philosophy and ones about which he is explicit.

A better understanding of the importance of this principle for Leibniz may be gained by contrasting his view of the scope of legitimate inquiry with what we may take as a paradigmatic example of the seventeenth century scientific view.

Sir Isaac Newton, in the "General Scholium" of his Mathematical Principles of Natural Philosophy, wrote:

> "...(H)itherto I have not been able to discover the cause of those properties of gravity from phenomena, and I frame no hypothesis, for whatever is not deduced from the phenomena is to be called an hypothesis; and hypothesis, whether metaphysical or physical, whether of occult qualities or mechanical have no place in experimental philosophy."[1]

According to Newton, then, it is inappropriate for someone engaged in experimental philosophy (that is, science) in any way, to resort to conjectures not having some basis in

[1]Sir Isaac Newton, Mathematical Principles of Natural Philosophy, 2 vols., trans. Andrew Motte; trans. rev. Florian Cajori; University of California Press: Berkeley, 1962. Vol. II, p. 547.

the observed phenomena. Newton thus provides a statement of one particular way in which science is limited, a limitation which, by and large, is respected by the majority of practising scientists to this day.

Leibniz certainly did not disagree with Newton's view per se. There are, however, two additional claims that Leibniz presents as supplements to this view of science. First, and most obviously, the limits of experimental philosophy are not the limits of philosophy itself. There exists a wider realm of inquiry, going beyond the merely empirical where carefully guided hypotheses or conjectures are not only permitted, but required.

Secondly, experimental philosophy as a part of the larger whole of philosophy is not an independent study, but a subsidiary one. As such, it is not self-grounding, but requires the support of metaphysics in order to have some basis from which to begin.

Though Newton could not find the causes for the nature of gravity and claimed that they were not a topic for scientific dispute, Leibniz would certainly claim that there is a reason why gravity is as it is and that it is in principle discoverable, though not, indeed, by means of scientific investigation.

This illustration, I think, gives some indication of the power of reason and its scope in Leibniz's philosophy. Reason can examine all questions, even those not suitable for the scientist. Though there is no a priori guarantee of

success for reason's investigations, there are also no limits imposed upon it save those imposed by its own nature.

In order to gage more fully of reason's power, it is necessary to return to our examination of Leibniz's view of truth. Corresponding to Leibniz's two principles of reasoning there are two distinct sorts of truth.

> "There are also two kinds of truths, truths of reasoning and truths of fact. Truths of reasoning are necessary and their opposite is impossible. Truths of fact are contingent and their opposite is possible. When a truth is necessary, the reason for it can be found by analysis, resolving it into more simple ideas and truths until we reach the primitive..." (M. Sec. 33)

Truths of reasoning are thus, for Leibniz, subject to the principle of contradiction and as such, are necessary truths in a logical sense. Furthermore, it is truths of reason which can be discovered by analysis or combined by synthesis out of previously discovered logical primitives. Indeed, for Leibniz, the principle of contradiction is itself a primitive, incapable of proof, and as it were, the model for all other such primitives.

As examples of truths of reasoning, Leibniz offers mathematical definitions, axioms, and postulates (M. Sec. 34) and it is clear that all such truths must similarly be purely conceptual and hence capable of being analyzed a priori.

The second sort of truth, factual or contingent truth, is subject to the principle of sufficient reason. It is obvious that there must exist some fundamental difference between these truths and those of reasoning, both because they

are related to different principles and becasue the ability to be analyzed or reduced to primitives is peculiar to truths of reasoning.

> "...(A) sufficient reason must also be found in contingent truths or truths of fact, that is to say, in the sequence of things distributed through the universe of creatures, whose analysis into particular reasons could proceed into unlimited detail because of the immense variety of things in nature and the division of bodies into the infinite." (M. Sec. 36)

Created things appear not to be amenable to Leibnizian analysis as a consequence of their great complexity. Although contingent truths cannot be reduced to necessary statements, it is still required that there be a reason for them being as they are, and not otherwise. Without again becoming concerned with the nature of sufficient reason, it is enough at this juncture to examine the precise source of the unanalyzability of contingent truths.

> "As all this detail (i.e. the detail of particular reasons) includes other earlier or more detailed contingent factors, each of which in turn needs similar analysis to give it reason, one makes no progress and the sufficient or final reason will have to be outside the sequence or series of these detailed contingent factors, however infinite they may be." (M. Sec. 37)

It is important here to be quite clear about what Leibniz is saying. Although he is claiming that the complexity of contingent truths is so great that we cannot analyze them, he is claiming much more than that. Contingent truths are, in fact, not capable of being analyzed at all, if by analysis we mean the process of discerning all of the primitive components which make up the actual contingent truth. The reason for this

impossibility is found in the fact that the complexity of these truths is infinite or unlimited. The end of an analysis of a contingent truth cannot be reached, either by man or God, because it has no end.

It is, I think, crucial that the distinction which Leibniz makes between necessary and contingent truths be seen clearly in its relation to knowledge. Leibniz's distinction between the two sorts of truth is a distinction between the nature of the principles or truths which provide the foundation for reasoning and the nature of those actually existing things about which we reason.

On the other hand, knowledge of these various sorts of truth is a topic far more liable to be mis-interpreted. As we have seen, Leibniz distinguishes four different types of knowledge, culminating in intuitive knowledge (see above pp. 53-55). In the strict Leibnizian sense, adequate or perfect and intuitive knowledge is the result of a complete analysis, which results in the matter under examination being reduced to a collection of first truths or explicit identities.

Now precisely what Leibniz is denying here is that it is possible for everything to be known in the strict sense. This poses no particular difficulties with respect to human intellect for Leibniz, for human intellect is, of course, finite and thus not capable of all truth.

However, the claim that it is not possible in principle for God to know something appears as the denial of divine omniscience. This apparent difficulty can, I think, be removed

by recognizing that it depends upon an equivocation on the meaning of the term 'knowledge' between the strict Leibnizian meaning and its ordinary or 'vulgar' meaning.

In the strict Leibnizian sense, to claim that God does not know some contingent truth, that "the predicate inheres in the subject", no more implies a denial of God's omniscience than the assertion that God cannot create an object so heavy that He cannot lift it implies that God is not omnipotent. It is the nature of the analysis of contingent truths that "there is no end". It can hardly be a fault of God's nature that He does not attain the end of such an analysis.

Although Leibniz was not always careful to observe this feature of contingent truths, he does appear to have exercised some care in his discussion of it in the paper "On Freedom".

> "(T)here is no truth of fact or of individual things which does not depend upon an infinite series of reasons, though God alone can see everything that is in this series. This is the cause, too, why only God knows the contingent truths a priori and sees their infallibility otherwise than by experience.
>
> "A careful consideration of these matters revealed a very essential difference between necessary and contingent truths. Every truth is either original or derivative. Original truths are those for which no reason can be given; such are identities or immediate truths, which affirm the same thing of itself or deny its contrary of its contrary. There are in turn two genera of derivative truths, for some can be reduced to primary truths; the others can be reduced in an infinite progression. The former are necessary; the latter, contingent. A necessary proposition is one whose contrary implies a contradiction; such are all identities and all derivative truths reducible to identities."[1]

[1] Ibid, p. 264.

The contention that God 'knows' a priori contingent truth must, I think, be interpreted in the ordinary, rather than the strict Leibnizian, sense of the word. Immediately after making the claim that God has such knowledge, Leibniz proceeds to claim that "careful consideration" shows us a "very essential difference" between the two sorts of truth which he claims exist.

This "very essential difference" is evident in those truths which are not reducible to identities. It is quite clear that these are the truths which cannot be reduced to identities, but to an infinite progression; that is, a progression that has no end. For Leibniz, then, it is obvious that God cannot reduce such truths to primary or first truths and so cannot, strictly speaking, be said to 'know' them. Such 'knowledge' is, however, logically self-contradictory and so, in that sense, not knowledge at all(or, to put it another way, it is not possible knowledge).

At the same time, to speak in terms of an ordinary understanding of 'knowledge', God does know contingent truths. It is this knowledge that Leibniz indicates by claiming that God sees truth with respect to contingent matters, that He sees "infallibly" or certainly the truths of experience.[1]

The basis for God's unfailing certainty with respect to matters of fact, or matters concerning existing objects relates to what is, I think, the key principle of Leibniz's

[1]Compare D.M., Sec. 8, where God sees the concept of Alexander.

metaphysics, that which demands a sufficient reason for everything being just as it is and not otherwise (see above pp. 62-63).

God can be certain of contingent matters not simply because of His omnipotence, but also because all of the predicates ascribable to any contingent thing can be seen by God even before its creation by a mere a priori consideration of that concept. For Leibniz then, God is both omniscient and also, strictly speaking, infallibly certain about things which He does not and, from a logical point of view, cannot know.

That this interpretation provides the key to Leibniz's understanding of the nature of freedom will be made clear below, in the broader context of his view of metaphysics. The paradoxical appearance of this view is one which easily could, and in fact has, sent commentators in search of a more straightforward interpretation.

This account of Leibniz's view of the nature of contingent truths is of vital importance for an understanding of Leibniz's view of freedom, and it is, to some extent at least, a matter of controversy. By way of providing support for the interpretation which I give, it should be noted that Leibniz expressed a view in complete agreement with that found in the "Monadology" (see above p. 67).

> "In contingent truths, however, though the predicate inheres in the subject, we can never demonstrate this, nor can the proposition ever be reduced to an equation or an identity, but the analysis proceeds to infinity, only God being able to see, not the end of the analysis, indeed, since there is no end, but the nexus of terms or

> the inclusion of the predicate, since he sees everything which is in the series."[1]

While the above quotation lends explicit support to the view of contingent truths which I have adduced to Leibniz, he did not always express himself in so unequivocal a way on this topic.

In the paper entitled "First Truths", for example, after first citing examples of truths of identity, which are governed by the principle of contradiction (e.g. A=A), Leibniz writes:

> "All other truths are reduced to first truths with the aid of definitions or by the analysis of concepts; in this consists proof a priori, which is independent of experience."[2]

The difficulty which arises with respect to the above quotation is quite simply that it is apparently inconsistent to claim that there is a specific class of things (that is, contingent things) which cannot be completely analyzed and at the same time maintain that all truths can, in fact, be reduced to explicit identities.

This is obviously a key issue, upon the resolution of which a corresponding commitment to an interpretation of Leibniz's view of freedom (and indeed of his philosophy as a whole) is entailed. As such, it is, I think, clearly necessary to view the difficulty within the broader context of Leibniz's thought.

While the relationship between truth (or what actually

[1] "On Freedom" in Loemker, pp. 263-266. p. 265.
[2] "First Truths" in Loemker, pp. 267-270. p. 267.

is the case) and knowledge regarded as access to the truth amounts very nearly to one of indentity in Leibniz's thought (by which I mean that, for Leibniz, everything true is knowable and is in fact, in some sense, known by God), this relationship is far more complex than it at first appears.

Leibniz is committed to the view that all truth is analytic, that all qualities truly predicable of any subject are, in some sense, in that subject. This is a claim not simply about the nature of truth, but rather an ontological commitment with respect to the nature of what is. It is, in fact, just this claim which brings to light the rationalism which is at the heart of Leibniz's view of the world.

The importance of this view of the world will appear somewhat clearer when we examine the nature of substance in Leibniz's philosophy. Obviously, however, its import as a means of making the world (at least possibly) intelligible, is undeniable.

At the same time, Leibniz became increasingly aware of the complexity of what is. The underlying intelligibility of what is, is never called into question by Leibniz. The problem which arises is that of access to the concepts of actual individuals, to analytic truths of endless complexity.

It is at this point that Leibniz appears to lapse into paradox. If he in fact does, it is a paradox vital to his rationalism. It is in virtue of the analytic nature of what is that God can see its complete nature a priori, while at the same time the complexity of what is makes it logically self-

contradictory to claim that God can analyse (and hence, know, in the strict sense) these things which He sees.

While I would maintain that only in such a way as this can Leibniz both attempt to preserve the pervasive rationalsim of his philosophy and to avoid the errors which he saw in Spinozism, others have been tempted to a somewhat more literal interpretation of these texts.

The most obvious way in which to resolve the issue is to examine the dates at which these two papers were written. If it is the case that the "First Truths" paper was written prior to the paper "On Freedom", it would at least be possible to claim that the latter represents an important advance in the development of Leibniz's epistemology, removing the confusion of his earlier view. Unfortunately, this alternative is not open to us. In providing a brief introduction to "First Truths", L.E. Loemker writes:

> "The date is unknown. On the one hand, the there are only references to the distinction between truths of reason and truths of fact and between necessity and contingency, a distinction developed in detail in ("On Freedom"). On the other hand, the concepts and phrases of the Discourse of 1686...are already prominent, and Couturat considered it a forestudy for that work."[1]

From this it seems that it will be necessary to refer

[1]L.E. Loemker, Introduction to "First Truths". Op. cit. p. 267. Loemker provisionally dates the paper between 1680-84. Couturat is even more definite though perhaps more speculative; "...we can conjecture with high probability that it was written about 1686 when Leibniz completed the principles and the essential theses of his system..." (Couturat, Louis; "On Leibniz's Metaphysics", trans. R. Allison Ryan in Leibniz, ed. Harry G. Frankfurt, pp. 19-45, Anchor Books: Garden City, 1972, p. 20).

to the "Discourse on Metaphysics" in order to determine if in fact Leibniz held in that work a view which is incompatible with that which he presents in the "Monadology".

In the "Discourse on Metaphysics", Leibniz distinguishes two kinds of connection between subjects and predicates. The first is that which is "absolutely necessary" whose contrary implies a contradiction, and the second is that which is "... necessary only ex hypothesi, and by accident so to speak, and this connection is contingent in itself when its contrary implies no contradiction." (D.M. Sec. 13).

It is on the basis of this distinction that Leibniz makes the claim that there are existent things not absolutely necessary (and so, free). If, however, as the "First Truths" paper maintains, truths necessary only given some hypothesis in fact can be reduced to identities, or absolutely necessary truths, there would appear to be no distinction between the two upon which Leibniz could base his claims concerning freedom.

In the "Discourse on Metaphysics", Leibniz goes further than merely positing a distinction between the two sorts of truths, without clarifying the nature of that distinction.

> "...(A)ll contingent propositions have reasons for being as they are and not otherwise or what amounts to the same thing,...they have a priori proofs of their truth which make them certain and which show that the relation between subject and predicate in these propositions has its basis in the nature of both. But we must consider too that these proofs are not demonstrations of necessity..." (D.M. Sec. 13)

We have already seen that an a priori proof need not involve a complete analysis (indeed, it rarely does). Although

ultimatley the complete reason for something requires a complete analysis, merely to find the sufficient reason for something does not entail the same thoroughness.

Earlier in the same work Leibniz states that:

> "...(W)e can say it is the nature of an individual substance or complete being to have a concept so complete that it is sufficient to make us understand and deduce from it all the predicates of the subject to which the concept is attributed." (D.M. Sec. 8)

It is the completeness of the concept of the individual, founded upon the principle of sufficient reason which leads Couturat to conclude from the fact that all the predicates of a subject are in some way contained in it that: "...therefore ...every truth can be demonstrated a priori by the simple analysis of its terms."[1]

We may, I think, regard the chief difficulty here as relating to the precise meaning of 'demonstration' for Leibniz. Regarding its use as always implying a complete demonstration, that is, a reduction of contingent to absolutely necessary truths, the possibility of demonstrating contingent truths seems to preclude any notion of freedom whatsoever.

On the other hand, regarding 'demonstration' as providing a sufficient, but incomplete reason for a contingent truth, while it leaves the nature of freedom unclarified at least does not rule out the possibility of some type of freedom existing in the Leibnizian system.

The same difficulty with respect to the nature of

[1] Couturat, op. cit.

truth also occurs in Bertrand Russell's book on Leibniz. Here too, the problem of how Leibniz is using the term 'demonstration' is crucial. Russell cites a number of texts to support his conclusion (not including "First Truths", which was unknown to him when he was studying Leibniz), the clearest of which ends with the lines:

> "It is certain therefore, that all truths, even the most contingent, have an a priori proof or some reason why they are rather than are not. And this is itself what people commonly say, that nothing happens without a cause, or that nothing is without reason."[1]

After having read Couturat, however, Russell was inclined to adopt Couturat's view regarding the relation between necessary and contingent truths and claims that the latter differ from the former only with respect to the relative complexity of the analysis required.[2] By doing so, the question of the meaning of 'demonstration' is resolved in favor of complete demonstration, and the more general principle of reasoning that every true proposition can be shown to be explicitly an identity (if not by us, at least by God).

In order to eliminate confusion from this question as far as is possible, it is important to restrict our interpretation of Leibniz's position to what can be gleaned from the texts, without any prejudice concerning the ultimate conclusion of his philosophy.

It is clearly not possible to resolve the difficulty

[1]Quoted in Russell, op. cit. p. 33.
[2]Russell, op. cit.

here simply by choosing an interpretation of the term 'demonstration' which we find most agreeable. At least one factor in this debate which we have so far neglected is that of the role played here by Leibniz's concept of infinity. The concept of infinity, which, in the "Monadology" is a key feature of the distinction drawn between truths of reason and those of fact is conspicuously absent in the "Discourse on Metaphysics" when a priori proofs are mentioned.

When Leibniz does, however, take the infinite complexity of the contingent into account in his writing, the picture which emerges is somewhat different from when he does not.

First, it should be pointed out that even when Leibniz does include infinity in his consideration of contingent propositions, the predicate is still, in some way, contained in the subject (contingent or not). Secondly, Leibniz does seem unequivocal on the claim that some form of a priori demonstration can be provided even for truths of fact.

The crucial difference here is, however, in the nature of the demonstration provided. It does not consist in a complete analysis of the contingent truth, as it does when truths of reason are concerned. Indeed, Leibniz claims that the sufficient reason is not to be found at all in the actual primitives which are combined to form the contingent under consideration. Leibniz claims that God sees that the predicate is in the subject, not that He knows it by analysis. Indeed, not even God is capable of completing the analysis, since it has no end.

Further, in the passage from the "Monadology" already quoted (see above p. 67), Leibniz maintains that the sufficient reason for the whole of a contingent truth or concept is not to be found in any of its component primitives, but outside of the sequence of those primitives. In fact, Leibniz's comparison of contingent truths to series is a mathematical one. It is not possible to give all of the values of some mathematical function, but if we know just what the function is, we can, in general, calculate its value given any particular value of the variable; e.g. if $f(x)=x^2+3$, then when $x=27$, $f(x)=632$. We cannot give the complete sequence of values possible for $f(x)$, but we can find any particular value.

This, of course, places a condition upon sufficient reasons which has not as yet been apparent. The sufficient reason for some particular contingent state must not itself require a sufficient reason etc., or we will wind up in an endless regress, in no pertinent respect different from that which we wished to avoid to begin with.

This same condition of needing no further reason applies to truths of reasoning as well, but these are, according to Leibniz, immediately or intuitively obvious and so require no proof (and of course, as intuitive, they could not be proved). To deny their truth would be the height of irrationality and would leave us in the position in which Aristotle claims Cratylus was left; that is, unable to step into the same river even once.[1]

[1] cf. Aristotle, Metaphysics, 1010a, 9-14.

The self-sufficiency of the reasons for a contingent truth is not so self-evident, but it is clear that, if a regress is to be avoided, some ultimate ground for contingent truth must exist.

> "Thus, the final reason of things must be in a necessary substance in which the detail of the changes can be contained eminently, as in their source. It is this substance which we call God." (M. Sec. 38)

Obviously, an understanding of the distinction between truths of fact and those of reason is vital for an understanding of Leibniz's method of investigation. Just as obviously, however, it is not sufficient to merely state the nature of this distinction, if we are to grasp precisely how Leibniz arrived at his metaphysical view.

Leibniz's notion of infinity, like his notion of the analytic nature of truth, is grounded in his metaphysics or, more precisely, in his view of substance. While it is possible to some extent to indicate the roles which the former concepts play for Leibniz (and is, in fact, I think, highly desireable to provide such indications), it is obvious that their full import will be apparent only when the notion of substance is itself examined.

In my concern to clarify Leibniz's relatively complex view of truth, I have not placed any great emphasis upon what it is in the various sorts of truth that enables Leibniz to term them '<u>true</u>' univocally. Most obviously, of course, this general characteristic is presented by Leibniz as a claim about the nature of reality itself; that is:

> "...it is certain that every true predication has some basis in the nature of things ....So the subject term must always include the predicate term in such a way that anyone who understands perfectly the concept of the subject will also know that the predicate pertains to it." (D.M. Sec. 8)

That this statement must be considered as revealing something of the nature of reality and not merely certain properties of true propositions is evident, given Leibniz's acceptance of a correspondence theory of truth. It is thus to the nature of things that we must turn if we are to find the basis of Leibniz's position concerning freedom and determinism.

Indeed, what seems clear here is that the method of Leibniz is itself based on certain preconceptions about the world, considered not from the point of view of specific features, but from the more general perspective that the world must ultimately possess a foundation in reason. To the extent that truths of reason are self-evident, so too will be the nature of the world.

The principle of sufficient reason may therefore be regarded as the crux of the matter at hand. If true propositions can, at least in principle, be made a priori about contingent things, as a result of their natures, and yet those true propositions are not known by analysis; that is, by the method of reason, in what way can reason be viewed as the basis of truth, and how can such "knowledge" be acquired?

The above presents, I think, a reasonable summary of Leibniz's method of investigation along with some suggestion of ts fo[illegible] ary not as great

a light as it might upon Leibniz's thought is due in part (not excepting, of course, the author's limitations) to the interconnection between method and metaphysics which is of especial concern when reason plays such a central role in each. The final requirement which must be satisfied before we come to a consideration of the problem of freedom in Leibniz is to provide a sketch of that metaphysical view; that is, of the "true" nature of man, God and the world, and of their interrelations. That such a summary will be, of necessity, even more cursory than that of method which has just been presented is, nevertheless, regrettable. However, enough can briefly be made clear to provide an adequate context for the discussion of freedom.

Before advancing to Leibniz's metaphysics proper, there is a further significant influence upon his philosophy which deserves consideration. I have thus far discussed Leibniz's methodology as a chiefly rational consideration of his philosophy. Methodology is of use, not only to discover new truths, but also to solve old problems.

One of the chief difficulties with the philosophical view of Descartes is that it reduces everything in the created world to a member of one of either two types of essentially distinct substance: that is, thinking substance or extended substance. In the first place, such a strict division of things into opposite camps poses the problem of their apparent interaction in a way which appears predestined to be insoluble. At any rate, Descartes' proposal that thinking substance could

affect, not the motion, but the direction of the motion of the animal spirits in some body, and hence influence that body's disposition, was unacceptable even to his contemporaries.

The second difficulty, which I have to some degree already dealt with, arises if one finds the Cartesian dualism unacceptable. This difficulty is, of course, that of how any error could arise by the use of a method designed to content itself only with the discovery of indubitable truth.

I have already presented Leibniz's chief alterations or revisions of Descartes's method. Although Leibniz was no less sure than Descartes that the world was organized on the basis of reason, and that consequently, truth was accessible to human reason, there is, in Leibniz's thought, the suggestion that, though knowable, the world is far more complex than it appears through Descartes' eyes.

Leibniz was dissatisfied not only with Descartes' account of the natures of and the relationship between mind and body, but also with his account of mechanics or the interaction of body and body. We may thus regard Leibniz's disagreement with Descartes, not merely as concerning metaphysics only, but as dealing with facts of science also, in particular with Descartes' claims concerning the conservation of motion.[1]

Leibniz was willing to accept that there is a distinction between mind and body, but not that Descartes had discovered its true nature. Leibniz agreed rather with Nicholas

[1] See, for example, Leibniz's critique of Descartes' physics in D.M. Sec. 17.

Malebranche:

> "...concerning the impossibility of conceiving that a substance which has nothing but extension, without thought, can act upon a substance which has nothing but thought without extension."

This is, of course, a very general criticism of Descartes' view, and does not give any indication as to how one might go about correcting it. (Leibniz does not, in condemning Descartes, call his view 'wrong' or even 'impossible', but declares that it is impossible to conceive how it could be a tenable position. I point this out as a typical example of the Rationalist approach to philosophy at work.)

In order to make clear the reasons for Leibniz's alternative to Descartes' dualism, and hence, in preparation for a discussion of Leibniz's concept of substance, it is necessary to examine Leibniz's more specific criticisms of Descartes' position.

Perhaps the most basic of Leibniz's criticisms concerns thinking and extension as end-products of Cartesian analysis. If Descartes has conducted his analysis correctly, then thinking and extension ought to be absolutes or simples, which Leibniz denies, claiming that they have existence, duration, etc. in common.[2]

Indeed, if one wishes to account in some way for mind-body interaction, and holds (as Leibniz did) that things can

[1] Op. cit. (Loemker, "Letters to Nicholas Malebranche", pp. 209-212), p. 209.

[2] [illegible] ("Pa [illegible] p.

only affect each other insofar as they have some common property (and only with respect to that property), then it is evident a priori that mind and body must have some relevant property in common. If this is not the case, then the concepts of mind and body cannot, in principle, provide a solution to the problem of the nature of their interaction.

With respect to both mind and body, however, interaction is only one of a much larger variety of experiences requiring explanation, and it is not at all obvious that purely mental or purely physical occurances can be respectively explained using the concepts of thought or extension.

Regarding body as in essence extension does not, to Leibniz, seem to give us a sufficiently adequate notion on which to base physics.

"Certainly neither motion or action nor resistance or passion can be derived from it."[1]

Although there is nothing about body, considered as an extended thing which would prevent it from being moved, there is also nothing which could initiate or cause a body to move. Nor can the fact of motion be explained by explaining each particular motion as a consequence of some prior movement. So long as extension is regarded as the essence of body, the sufficient reason for motion cannot be deduced from the concept of body. Further, it is also not possible to account for the laws of motion; that is, extension provides no reason for

[1]Ibid. ("Critical Notes on the General Part of the
of

the existence of moving bodies, whose movements follow regular patterns. The Cartesian description of matter thus appears as not only metaphysically problematic, but also as scientifically unacceptable, in Leibniz's view, for it precludes the possibility of dynamics or even kinematics by denying such studies any basis in the nature of their object.

Coupled with this criticism of body is Leibniz's attack upon Descartes' identification of mind as consisting essentially of thought. Corresponding to his criticism of body considered as extended substance, is Leibniz's claim that thought cannot itself explain everything in the mental realm.

> "...(A) thought is an act, and since one thought succeeds another, that which remains during this change must necessarily rather be the essence of the soul, since it remains always the same."[1]

Leibniz is here objecting to precisely the opposite of the fault which occurs in Descartes' conception of body. While extension <u>per se</u> is incapable of acting, thinking is essentially an activity. In order to provide a complete account of mental substance, or of the fact of subjectivity, it is necessary to explain, not only 'thinking', but also to give some account of the thing that thinks.

According to Leibniz then, Descartes' analysis of mind and body fails to provide not only the basis for an explanation of interaction, but also to account for mental and physical occurances as well. Mind has become mere activity, with no

[1]Ibid. ("Notes on the Reply of Foucher to the Criticism of his Criticism of the 'Recherche de la Verité'", pp. 154-

actor, and body has become bare extension, which is not only inactive, but incapable of acting.

Any adequate account of the nature of the world, must, for Leibniz, account both for persistance of the subject (that is, its identity through time) and also the fact of activity, both in mental and physical terms. Further, such an account must not preclude, but account for the apparent interaction of mind and body.

The traditional (and then-current) manner of accounting for the persistance of the subject (or even of the existence of the subject) is the notion of substance. As such, one can readily anticipate that Leibniz's attempt to provide a metaphysical foundation for man and the world around him will be made in terms of the concept of substance as were those of both Descartes and Spinoza.

Granted the utilization of the concept of substance, it is not immediately obvious how the fact of activity can be incorporated or if the Cartesian framework of two distinct, though interacting substances can be supported. As Leibniz's concept of substance provides us ultimately with his metaphysical view of man, the world and God, it is to this topic that I now turn. The elucidation of these concepts within the context of Leibniz's philosophy will complete the background against which his view of the nature and role of freedom can be presented and assessed.

III

METAPHYSICS AND FREEDOM

The modifications made by Leibniz to the epistemology and method of inquiry of Descartes are, it seems, the result of two separate factors. The first is that Leibniz had the opportunity to examine Descartes' method and his conclusions, to find his errors and so attempt to correct them. At the same time, however, despite the defects of Cartesian Rationalism, Leibniz's faith in the power of reason and the extent to which the world was rationally ordered appears to have gone considerably beyond that of Descartes as is evident from Leibniz's adherence to the principle of sufficient reason.

As vital as these considerations of methodology are to an understanding of Leibniz's philosophy, it is necessary now to move beyond them to that philosophy itself. I suggested in Chapter I (see above p. 30), that Spinoza made no significant alteration to Descartes's method of investigation. Nonetheless, Spinoza's metaphysical views differ from those of Descartes' a great deal. If, as I have suggested, the views of Descartes do, in fact, arise in a straightforward manner from his methodology, we are left in somewhat of a dilemma concerning Spinoza.

It is evident that Spinoza's influence upon Leibniz is mainly in terms of the contents of their metaphysical views. It would, however, seem to be entailed by what I have already said that, insofar as he does not agree with Descartes, Spinoza either has not reasoned in the manner in which he claims or

there is some major flaw in his thinking.

The significance of this difficulty relates to the fact that Leibniz's primary reaction to Spinoza is one of disagreement. This disagreement is, for our purposes, largely beneficial, for where Leibniz disagrees with Spinoza, he is usually quite careful to present us with his reasons for doing so, and where he presents an alternative view the same care is exercised.

On the other hand, it is, of course, a far more difficult task to ascertain the extent to which Leibniz is correct in his criticism of Spinoza, for as mentioned above, it is not always clear just how Spinoza arrived at his views on any particular matter. This being the case, I shall use Leibniz's criticisms of Spinoza as a supplement to the statement of his own views in the hopes of benefitting from the clarity of expression Leibniz was careful to provide in light of the obscurity he found in Spinoza.

Leibniz's metaphysics, as indeed all Rationalist metaphysics, is centered upon the notion of substance. In the case of Leibniz, the notion of substance is placed under restraints not found in either Descartes' or Spinoza's thought, for Leibniz viewed both of their previous attempts to present an adequate concept of substance as failures. I have already mentioned some of the grounds for Leibniz's dissatisfaction with Descartes and it is, I think, advisable to very briefly mention those which he presented against Spinoza.

Leibniz appears to have been most perplexed, not by the actual operations supposedly carried on by Spinoza's substance,

but by its very nature and the natures of the other basic components of Spinoza's metaphysics, i.e. modes and attributes. In connection with Spinoza's definition of substance as independent in both being and conception, Leibniz counters that:

> "...the contrary seems rather to be true, that there are some things which are in themselves though they are not conceived through themselves. And this is how men commonly conceive of substances."[1]

Leibniz continues this attack on Spinoza's view of substance by pointing out that the independence of the conception of substance is apparently contradicted by the role played by attributes according to Spinoza (see above, p. 34 for Spinoza's definition of an attribute). It would seem that if substance is to be conceived through itself, it ought not to be conceived through attributes. If one wished to assert, in defense of Spinoza, that attributes are really not things separate from substance, then Leibniz claims that some account must be given of the meaning of the term 'thing' in this context.[2]

The notion of attribute in Spinoza's philosophy is one with which Leibniz had, in fact, considerable difficulty. It was not at all evident to Leibniz how one can speak of different attributes constituting or expressing the same substance.

> "...(I)t can be doubted whether the same simple essence can be expressed through many different attributes. There are in fact many definitions of composite things, but only one of a simple thing, and its essence can be ex-

[1] "On the Ethics of Benedict de Spinoza" (in Loemker, pp. 196-206), p. 196.

[2] Ibid.

pressed it seems only in one way."[1]

Leibniz's rejection of Spinoza's view concerning how attributes express or constitute the nature of substance is, I think, based upon Leibniz's view regarding the nature of simples. If two things are independently conceivable for Leibniz, then they have no elements in common. If they are not independent, it is precisely to the extent that they share some common element or elements.

> "I do not concede that there can be two attributes which are conceived through themselves and yet can express the same substance. For whenever this happens, these two attributes expressing the same thing in different ways can be further analyzed, or at least one of them."[2]

It is evident that, whatever degree of sympathy Leibniz may have had for Spinoza, his own views on method and on the need to present clearly the steps of any analysis or synthesis of concepts made it practically impossible for him to grasp either Spinoza's notion of attribution or the sense in which substance is constituted or expressed by its attributes.

Leibniz's difficulty here can be further clarified by showing how he himself viewed 'expression' in a metaphysical context. He maintains in the Discourse on Metaphysics that every individual substance expresses the entire universe, "...about as the same city is represented differently depending on the different positions from which it is regarded.". (D.M. Sec. 9).

Differences in expression by various substances are due, not to their absolute differences from each other, but to

[1]Ibid. p. 197.
[2]Ibid. p. 198.

merely relative ones, as in the analogy of the various views of the city, these are the result of relative differences in position. In further clarifying this notion of expression for Antoine Arnauld, Leibniz wrote:

> "One thing expresses another (in my terminology) when there exists a constant and fixed relationship between what can be said of one and of the other. This is the way that a perspectival projection expresses its ground plan."[1]

The relationship of expressing is thus, for Leibniz, one in which a perfect correspondence holds between what is expressed and the expression itself. It is obvious that the same "constant and fixed relationship" could not be the same with respect to two mutually independent expressions. While it is true that something may be expressed in more than one way, the fact that they are not the same expression implies that the relationships they bear to the thing expressed cannot be identical.

The difficulty which Leibniz found with Spinoza's concept of substance is paralleled by that which he found with Spinoza's concept of mode. The joining together of the demand for both ontological and conceptual dependence of modes did not appear to Leibniz as either proven or provable. It is particularly with respect to the conceiving of various modes in Spinoza's account that Leibniz could not agree.

According to Spinoza, everything other than substance (i.e. all modes) is caused by substance. This entails, for

[1]G.W. Leibniz, in The Leibniz-Arnauld Correspondence, ed. and trans. H.T. Mason; Manchester University Press, 1967, p. 144.

Spinoza, not only that God or substance is the cause of the existence of modes, but also of their essences (see Ethics I, Prop. xxv).

To this claim which would, it appears, rule out even the possibility of anything being to some degree independent of God, Leibniz objects that, "...even admitting that the essence of things cannot be conceived without God...it would not follow that God is the cause of their essence."[1]

In considering essences qua essences, without regard to whether or not they are ever actualized, Leibniz is always concerned with maintaining the independence of their conception. While it may require God to make any particular essence actual, it is the truths of reason which make things possible and so are the source of essences, or at least their foundation. As we have already seen (see above p. 49), Leibniz took Descartes to task for attempting to claim that the laws of reason sprang from God's will alone.

In attacking Spinoza for what is, in effect, a stance similar to Descartes' in this respect, Leibniz cites, in defence of his own view, the conception of a circle which, though it requires as a part of it the conception of the centre of the circle, could hardly be said to be caused by that conception[1] (by causality is meant here efficient causality). Leibniz, of course, regards God as the foundation of all reality. God is not, however, in Leibniz's philosophy, the direct source

[1]Op. cit. p. 203.
[2]Ibid.

of possibilities. They exist in virtue simply of the existence of the eternal verities or first truths.

As I have tried to indicate by the above illustrations, Leibniz's disagreement with the fundamental concepts of Spinoza's metaphysics is largely a result of what Leibniz regarded as a failure on the part of Spinoza to make explicit the relations between those constituents of his metaphysics which were either novel or ambiguous. Leibniz's objections may, in large part, be viewed as stemming from the demands placed upon any philosophic or scientific work by his demand that the foundations of any comprehensive attempt to account for the nature of things be presented clearly. Despite Spinoza's attempt in the Ethics to perform such a task (which is, of course, the chief reason for Spinoza's use of his geometrical method of presentation), Leibniz was obviously convinced that Spinoza had not been successful.

There is, however, one final point of benefit which we can derive from Leibniz's treatment of Spinoza. That is, Spinoza, like Leibniz (and indeed most Western metaphysicians since Descartes), was called upon to account for the apparent relationship between thought and extension. He attempted to do so by giving thought and extension the status of attributes, through which substance could be conceived. As with Descartes, Spinoza viewed these two attributes as totally independent of each other and as conceivable through themselves alone.

Leibniz objects to the claims of both Descartes and Spinoza, regarding thought and extension not simply on phil-

osophical grounds, but also as the result of his scientific investigations. In the first place, Leibniz objects to the claims that thought and extension are simples incapable of being further analyzed and conceivable through themselves alone.

"Extension and thought are complex forms, for existence, duration etc. are common to them."[1]

This represents a significant break with both Descartes and Spinoza, for both of whom thought and extension played fundamental roles, and it may also be regarded as an example of the care with which Leibniz strove to remove presuppositions from his philosophy, and carry his analyses through to the bitter end.

It is with respect to the concept of extension that Leibniz's analysis had the most significant effect. Not only did Leibniz regard extension as lacking conceptual simplicity, he also saw it as fundamentally lacking the capability of serving as an explanation of the nature of body.

> "...(T)here is required in extension, the notion of which is relative, a something which is extended or continued as whiteness is in milk, and that very thing in a body which constitutes its essence; the repetition of this, whatever it may be, is extension."[2]

So, far from constituting the essence of matter or body, extension seems, in the above quotation, to have been denied any claim to genuine existence at all. Leibniz goes even further than this in the Discourse on Metaphysics and

[1] "Paris Notes" (in Loemker, pp. 157-164), p. 160.

[2] "Critical Exposition on the General Part of the Principles of Descartes" (Op. cit.), p. 390.

claims, not merely that extension is relative, but that it is, to some degree, relative to our perceptions (c.f. D.M. Sec. 12).

In order to ascertain upon just what extension is founded, it is necessary to turn to Leibniz's views on the basic elements of physics. This is not the place to present a long digression on the nature and achievements of mechanics in the seventeenth century, nor is it necssary. It will be sufficient if we examine Leibniz's chief conclusions with respect to the nature of force, which plays a vital role in both his physics and his metaphysics.

For Leibniz, force, which was to be the concept which replaced extension as the fundamental concept of physics, was of two kinds; active and passive.

> "Active force, which may well be called power, as it is by some, is of two kinds. The first is primitive force, which is in all corporeal substance as such, since I believe that a body entirely at rest is contrary to the nature of things. The second is derivative force, which is exercised in various ways through a limitation of primitive force resulting from the conflict of bodies with each other. Primitive force, which is nothing but the final entelechy, corresponds to the soul or substantial form, but for this very reason it relates only to general causes which cannot suffice to explain phenomena."[1]

Of the two sorts of active force; primitive and derivative, the former is, for Leibniz, a metaphysical force of no use in the scientific explanation of particular phenomena. It is, however, the source of derivative force which is precisely that force which is active in particular bodies and hence forms part of the subject matter of physics.

[1] "Specimen Dynamicum" (in Loemker, pp. 435-450), p. 436.

This distinction presents us with a further glimpse of an important distinction in Leibniz between scientific and metaphysical explanation, touched upon earlier when I contrasted the view of Leibniz with that of Newton regarding the extent to which we might meaningfully go in seeking explanations. Primitive active force, though it is the source of the forces measured by physics, cannot be used to explain any of the latter in particular, but only to stand as an account of their source at a more fundamental, non-physical level.

It should also be noted, as a further basic feature of Leibniz's metaphysics, the claim that no body can be entirely at rest or inactive. The assertion that such a state (i.e. total rest) is unnatural reflects the extent to which dynamical considerations permeate the metaphysics of Leibniz. The justification which Leibniz provides for this general claim of physics will be made explicit below when I deal with Leibniz's account of action and passion in spirits or self-conscious beings.

Corresponding to the two-fold division of active force in Leibniz's dynamics is the division made between the varieties of passive force.

> "Passive force is likewise of two kinds--primitive and derivative. The primitive force of suffering or of resisting constitutes the very thing which the Scholastics call materia prima, if rightly interpreted. It brings it about, namely that one body is not penetrated by another but opposes an obstacle to it and is at the same time possessed of a kind of laziness, so to speak, or a repugnance to motion ....Hence derivative force of suffering thereafter shows itself in various ways in secondary

matter."[1]

It is in terms of these notions of various sorts of forces that Leibniz attempts to provide explanations for processes which may in one sense be regarded as purely physical rather than spiritual, and to correct the errors of Descartes' mechanics concerning, e.g. the conservation of motion (see D.M. Sec. 17). Primary forces, both active and passive, are metaphysical concepts as such, which, though they cannot directly be employed in solving problems of physics, are the necessary pre-conditions for the particular solutions which Leibniz provides.

Thus, we can see how it is that metaphysical concepts arise out of physical investigations for Leibniz, providing an additional source for his thought as well as considerations of epistemology and logic.

It is obvious from Leibniz's remarks concerning force, which I have quoted here, that his account of the nature of substance will be different from both Descartes' and Spinoza's. The notion of extension has practically vanished from the realm of metaphysics, to be replaced by the far more elaborate theory of forces which will, hopefully, be capable of making good the failures of extension as an explanatory concept.

Leibniz's account of the nature of substance and the role it plays in his metaphysics resembles that of Descartes' rather than Spinoza's, to the extent that there exists more than one substance (though not more than one totally independent

[1]Ibid. p. 437.

substance, i.e. God). While it is true that both Descartes and Leibniz were concerned with, at the very least, accomodating Christianity in their philosophical writings, it would, I think, be illegitimate to suggest that the views of either could be shown logically to lead to Spinozism if they had not shown the concern for convention which they did.

In particular, Leibniz, whatever his concern with defending the claims of faith, employed a far more typically metaphysical argument to show the error of Spinoza's substantial monism. Holding as he did to the principle of sufficient reason, Leibniz saw that, if we claim there is but one substance of which each of us is a mode:

> "...we fall into the opinion of Spinoza or some similar authors who hold that there is only one substance, God, who thinks, believes, and wills an entirely contrary thing in someone else, an opinion which Mr. Bayle has well held up to ridicule..."[1]

Since a sufficient reason for thinking some particular thought is also sufficient for not thinking any other thought, such a situation as that alleged to follow from Spinoza's view would not only be ridiculous, but contradictory.

It seems then, that, in Leibniz's view, the existence of any contraries whatsoever would be a _prima facie_ argument for the existence of a plurality of substances. Although Leibniz's metaphysics contains a great many subtleties (as one would expect of _any_ metaphysics), it is not necessary to elaborate upon all of them, in light of our limited purpose here.

[1]"Reflections on the Doctrine of a Single Universal Spirit" (in Loemker, pp. 554-560), p. 559.

This being the case, my account of the nature of individual substances or 'monads' will, in general, confine itself to those monads which Leibniz calls spirits (see M. Sec. 29), which correspond to self-conscious thinking individuals or what we might ordinarily describe as human consciousness (although Leibniz would include as well, e.g. angels).

There are other sorts of monads corresponding to the metaphysical reality behind all other animals, vegetables, and minerals in Leibniz's system. The general difference between spirits and other monads is described by Leibniz as having to do with the clarity of their perception (of which I shall have more to say shortly). The most significant specific difference between spirits and other monads in Leibniz's metaphysics is that spirits alone possess reason, or a knowledge of the eternal truths.

With respect to the nature of substance itself, Leibniz begins the "Monadology" by giving this definition:

"The monad which we are to discuss here is nothing but a simple substance which enters into compounds. Simple means without parts." (M. Sec. 1).

From a Rationalist standpoint, it is obvious that Leibniz is reasserting here one of the key concepts of his methodology; that is, that the fundamental constituents of what is must be simple, incapable of further analysis. It is, of course, just this simplicity which he found wanting in the works of Descartes and Spinoza.

It should be evident also, given what has already been

said concerning the concept of extension, that it has lost its claim to provide the essence of any individual substance. This is, of course, due both to Leibniz's physical investigations and to the concept of extension having failed to withstand Leibnizian analysis.

Leibniz continues by providing an argument to show that the substances just defined must exist:

"There must be simple substances, since there are compounds, for the compounded is but a collection or an aggregate of simples." (M. Sec. 2).

By calling compounds "aggregates", Leibniz indicates that they lack the intrinsic unity which is a feature of substances. It is not, however, evident just what else Leibniz intends by the term 'aggregate'. He next indicates that parts (i.e. simples) are necessary if extension, figure and indivisibility are to exist and hence that monads are the fundamental constituents of nature (M. Sec. 3).

While this clarifies Leibniz's meaning to some extent, indicating that extension arises out of the 'repetition' of simple substances, it still leaves unanswered the question of how the extended can arise from the unextended. Before attempting to provide an account of Leibniz's answer to this question, I shall first indicate some of the other properties which he attributes to individual substances.

Simple substances cannot naturally be destroyed (M. Sec. 4), nor created by combining simpler entities (M. Sec. 5). Monads thus can come into existence only as the result of an

act of creation, that is, a divine or supernatural act (though Leibniz certainly does not claim that they are self-caused).

It can be seen that Leibniz does wish to claim a much greater degree of independence for individual substances than for other created objects (e.g. extended objects). They appear as the building blocks from which the world as we know it arises and they cannot decay or degenerate, although the compounds which they enter into obviously can and do.

Although these claims might appear aimed at countering Spinoza's denial of such 'created substances', there is another, at least equally vital, feature of substances which is implicit in Leibniz's account. Not only can substances be viewed as relatively independent of each other in terms of their existence, but also in terms of their essences.

> "There is...no way of explaining how a monad can be altered or changed internally by any other creature, since nothing can be transposed in it, and we cannot conceive in it, as we can in composite things among whose parts there may be changes, that any internal motion can be excited, directed, increased or diminished from without. Monads have no windows through which anything could enter or depart." (M. Sec. 7)

This statement of Leibniz's is, at least, as radical as any made by Spinoza. Leibniz had previously, as we saw, dispensed with the need for accounting for mind-body interaction in anything like the Cartesian manner by denying that there was such a thing as "extended substance".

Now he has taken the much stronger stance of denying any interaction between created substances. Although it is possible to see how such a claim must follow from his conception

of substance as simple, it is at least counterintuitive to claim that nothing external to us can affect us, and one begins to see why Bertrand Russell, upon first reading the "Monadology" judged it, "...a kind of fantastic fairy tale, coherent perhaps, but wholly arbitrary."[1]

We have, of course, already examined enough of Leibniz's thought to see that his view of substance is by no means arbitrary. Still, if one wishes to deny that there is any interaction between the individual mind and the external world, it seems that an explanation is called for. (I might point out that this position of Leibniz's is particularly extraordinary given that he was not only a philosopher, but a physicist as well. That being so, it might rather be expected that he would assume efficient causality in the material realm as fundamental.)

Despite Leibniz's denial of interaction between created substances, he still wishes to maintain that they are active (M. Sec. 10). The primacy of activity, which we saw underlay Leibniz's account of physics, is, in fact, basic to the nature of created substances.

"...(A)ctivity and passivity pertain distinctly to individual substances..." (D.M. Sec. 8)

Now substance cannot change in physical terms either externally by moving, for it is not extended or in space, or internally, for it has no parts. Nor, on the other hand, could it change its nature as substance. Indeed, we have not so far

[1]Bertrand Russell, op. cit. p. xiii.

found anything in substance which could change.

> "Yet it is necessary for monads to have some qualities, otherwise they would not even be beings. And if simple substances did not differ by their qualities, there would be no way of perceiving any change in things...and monads, if they were without qualities, could not be distinguished from each other..." (M. Sec. 8)

The principle of sufficient reason obviously demands that if two substances are different from each other there must be some reason why this is so, and such a reason could not be found just in the fact that they are substances. Likewise, the nature of substance qua substance does not change, so that change, which does occur, must also have its source in some other feature of the nature of substance. It is also clear that Leibniz regards complete lack of change or activity as unnatural and contrary to the nature of being.

The principle of sufficient reason also demands that the change in any substance be continuous or have no gaps, for this would be contrary to the nature of reason as well.

> "...(E)very natural change takes place by degrees--something changes and something remains--and as a result there must be a plurality of affections and of relations in the simple substance, even though it has no parts." (M. Sec. 13)

"Natural", in the above quotation, is obviously meant to be understood as the opposite of supernatural; that is, it refers to only those changes which take place without the direct intervention of God. "Natural", however, also means reasonable, for the demand for a sufficient reason is also a part of all change in created things.

The last constituent of the monad's nature with which

we need be concerned is just what the qualities of a monad are.

"The passing state which enfolds and represents a multitude in unity or in the simple substance is merely what is called perception." (M. Sec. 14)

The constant change of each monad is thus to be regarded as a change in its perception. There is thus no need for substantial change of any sort in the monad, in order for it to remain active.

The sense in which Leibniz intends perception is obviously unique to his metaphysical view. He does not mean, as we ordinarily do when speaking of sense perception, our awareness of being surrounded by an external world with which we are in contact. This, of course, Leibniz has already ruled out.

The source of our perceptions must, on Leibniz's account, be from within ourselves; that is, we possess an internal principle which regulates our perceptions (M. Sec. 11).

> "The action of the internal principle which brings about change or the passage from one perception to another can be called appetition. It is true that appetite need not always fully attain the whole perception to which it tends, but it always attains some of it and reaches new perceptions." (M. Sec. 15)

We are, according to Leibniz, always perceiving, though we are not always aware (i.e. conscious of our perceptions) of that fact (see M. Sec. 21-23). As already mentioned, this constant activity is, in fact, required by Leibniz's metaphysics.

It should be pointed out that Leibniz regards perception as always present to some extent, however confused, in all substances. Spirits, however, are also capable of apperception

or self-consciousness, a feature which is unique to them.

Leibniz spoke of perception as a representation (see above p. 105) and the question arises as to what is being represented. In the first place, it is important to note that Leibniz has thus altered our ordinary perceptions of things around us to the status of representations. We can, in fact, have no direct access to what is around us; indeed, we cannot even be sure that there is necessarily anything external to us, with the exception of God (see D.M. Sec. 14).

Regarding our perceptions as representations puts us in the position of being able to make some sense of Leibniz's account of extension. In the first place, it becomes obvious in what sense extension is relative, i.e. it has no other existence than as a representation of ours, as a feature of our perception. Leibniz can thus provide an account of the external world just as phenomena, and the nature of substance is such that what is external to substance cannot be directly presented to it. It must, therefore, be represented in perception.

At the same time, however, it is clear that what Leibniz takes to be represented by our perceptions of extended things and other phenomena is not a matter of mere subjective whim. As is evident in our perceptions, the phenomenal world is not a random collection of sensations, but is strictly ordered in such a way that we can seek the causes of events and study them in an organized and coherent manner; that is, scientifically.

Further, however, these compounds which are represented

to us as a world of extended objects are none other than those aggreates of simple substances which I mentioned above. These are, in fact, the underlying metaphysical reality which phenomena represent.

Now although, according to Leibniz, my perceptions are representations of a strictly ordered metaphysical reality, that order cannot cause the order in my perceptions, nor can the ordering of other simple substances be the result of any causal connection between them.

The relationship which does exist between the perceptions of the individual substance and the rest of the universe is that of expression (see above pp. 91-92). That is, my perceptions express the rest of the universe from my unique point of view within it. Correspondingly, every other substance in the universe also expresses the universe, each one from its own point of view. Further, the order which we discern in the world of experience represents the order to be found at the purely metaphysical level, the level at which we, as spirits, have our true being. To that extent then, we too are a part of the order of the universe which our perceptions express and we too act in accordance with the rules that govern it.

The fact that this order exists both at the level of experience and at the metaphysical level which our reason leads us to, indicates to us not only something about the nature of what is, i.e. the rational harmony of its parts, but also, in Leibniz's view, about the relationship between God and the world.

In Chapter II, while dealing with the question of how

Leibniz distinguishes between necessary or logical truths and truths about created things or contingent truths, I pointed out Leibniz's view that a sufficient reason for the nature of created things was not to be found within them alone, but must be sought outside of them (see above p. 80). This demand, of course, exists both for what we might regard as the internal nature of things and the relations which appear to exist between them.

The search for the reasons for things is, I think, akin to Descartes' search for the source of the idea of perfection, which he possessed despite his lack of the perfection itself.

> "...(T)he final reason of things must be in a necessary substance in which the detail of the changes can be contained only eminently, as in their source. It is this substance that we call God." (M. Sec. 38)

Notice should be made that God is introduced here as the reason for things being as they are. This indicates almost an identification of God and sufficient reason; that is, there appear to be some grounds for replying to the question of why things are as they are and not otherwise, simply that God exists. Ultimately then, God is to be regarded as the reason for things (though this requires qualification).

It should also be noted that Leibniz calls God a necessary substance. In terms of Leibnizian epistemology, this amounts to claiming that the non-existence of God would be self-contradictory.

Since God is regarded as providing the reason for things and needs no reason external to Himself to insure His own ex-

istence, it is also clear that there can be no sufficient reason for any other Deity existing (M. Sec. 39). In addition to this, writes Leibniz:

> "(w)e may conclude, too, that this supreme substance, being unique, universal, and necessary, and having nothing outside of it which is independent of it, and being a simple consequence of possible being, must be incapable of limits and must contain as much reality as possible." (M. Sec. 40)

That God can be conceived of as "a simple consequence of possible being" is, of course, the grounds for the so-called Ontological Argument for God's existence. This argument is found explicitly in Descartes' writings and occurs in Spinoza's thought as contained in the concepts of substance and God, or infinite substance.

Leibniz adds to the basic statement of this argument (i.e. that God exists by His very nature) by including the provision of possibility.[1] Despite Leibniz's many attempts to justify the ways of God to man (as in, e.g. the Theodicy), he (Leibniz) is unwilling to admit God into existence until it is shown that God is possible. While Leibniz, of course, argues that God is not merely possible but necessary, it is an indication of the extent to which concern with the rational justification of things permeates his philosophy that he should even ask such a question.

It is also something of a common-place, theologically speaking, to mention that God is without limits, since there

[1]See e.g. D.M. Sec. 23 for Leibniz's revision of Descartes' Ontological Argument.

exists, of course, nothing which could limit Him. This is usually understood to refer to the Divine attributes of wisdom, goodness and power. Because of the relationship existing in Rationalist thought between the existence of an object and the idea of it, such as is found in Spinoza's notion of substance, anything which is conceived of without limits may be regarded as existing without limits or of having unlimited or infinite being.

Leibniz wishes to claim that God must contain "as much reality as is possible", (notice again the inclusion of the rider, "possible"), from which, he claims:

> "(i)t follows...that God is absolutely perfect; perfection being nothing but the quantity of positive reality taken strictly, when we put aside the limits or bounds in the things which are limited." (M. Sec. 41)

The equating of perfection with "quantity of positive reality" might, at first glance, appear to be nothing but the making explicit of one of the often suppressed premisses of the Ontological Argument for the existence of God, and, if correctly understood, it is indeed a part of that argument. Leibniz, writing elsewhere, deduces the relation of perfection to reality from the very existence of things.

> "...(F)rom the very fact that something exists rather than nothing, there is a certain urgency (exigentia) toward existence in possible things or in possibility or essence itself, a pre-tension to exist, so to speak--and in a word, that essence in itself tends to exist."[1]

All things or possible things, according to Leibniz,

[1] "On the Radical Origination of Things" (in Loemker, pp. 486-491), p. 487.

strive to exist, and to the extent that they succeed, are apparently what Leibniz calls perfect. God is the most perfect, for there is no restriction upon His being. Creation, by the very fact that it has been created, appears likewise to share in this perfection.

Leibniz's concept (or concepts) of perfection is relatively complex, and is significant to his discussion of freedom. The clearest discussions of it occur in the Theodicy, in connection with the nature of God, creation and the relation between the two. It is in that work too that Leibniz presents his most elaborate arguments concerning the relation between freedom and determinism.

In the Theodicy, Leibniz distinguishes three different sorts of perfection:

> "perfection includes not only the moral good and the physical good of intelligent creatures but also the good which is purely metaphysical, and concerns also creatures devoid of reason."[1]

The distinction between intelligent creatures and others, in the above quotation, is equivalent to that mentioned earlier between spirits and all other individual substances, or monads.

The perfection which Leibniz equates with positive reality can thus be seen to be of the metaphysical variety and amounts to the claim that all possible things tend to exist and

[1] G.W. Leibniz, Theodicy, trans. E.M. Huggard, ed. Austin Farrer. Yale University Press: New Haven, 1952, Sec. 209. All further references to this work will be referred to in the body of the text by section number, e.g. for (Th. Sec. 4) read (Theodicy, Section 4).

that unlimited things tend to do so absolutely and so to exist of necessity.

This provides us with grounds for one interpretation of Leibniz's statement; "...God has chosen the best of all possible worlds" (Th. Sec. 168), which he terms; "my fundamental assumption" (ibid). That is, it appears that we may claim God has created the world with the most possible reality and thus, metaphysically speaking, the best world. While Leibniz does claim that this world contains the maximum possible amount of being, to interpret his claim about it being the best in this sense alone would be to misrepresent him.

I have already noted the fact that there is a strict correspondence between the physical world and the metaphysical reality of which it is the expression. It can now be seen that there is a third level to be taken into account, the moral one.

While metaphysics may provide an explanation of the ultimate foundations of what is and physics explain (to some extent) what we take to be the material world around us, it is necessary to give some explanation of the nature of consciousness. That is, there must be some attempt made to elucidate what appears to us as the agent for whom the physical world expresses the metaphysical realm.

As noted above (see pp. 105-106), Leibniz takes account of this difficulty when he lists, as separate from perception itself, apperception or self-consciousness. It is only at the moral or conscious level that action is possible, that one can perform good or evil deeds for which one can be held responsible.

It is thus only at this level that one can increase one's moral worth or decrease it so as to become worthy of the suffering entailed by sin.

The term 'suffering' in the previous sentence is, in fact, quite appropriate in this context. Just as there exists a correspondence between the physical and the metaphysical, so too is there a correspondence between the moral and the physical. What exists as sin, at the moral level, becomes suffering at the physical level and, as such, suffering can exist only for self-conscious beings.

We have now examined all of the chief elements of Leibniz's metaphysics and, as far as possible, the justification given by Leibniz for the development of it in just this way. When seen in the context of both Leibniz's predecessors and the epistemology which he developed, the world of windowless monads is far more comprehensible than it may first have appeared. There remains nothing further to be examined at this point except the nature and role of freedom in this metaphysical scheme.

It should be clear by now that in order for any action to occur or for anything to exist in Leibniz's universe, there must exist a sufficient reason for it being so and not otherwise. And what is true here in particular is also true in general. In order for God to create this world at all, He must possess the sufficient reason that He knows that it is the best possible.

God's knowledge is, of course, absolute and all encompassing. Since nothing can enter any created substance from

outside, every substance must contain within it, in some way, all of the states that it will ever experience (or if you prefer, the actual correlates of all of the predicates that can ever be truly asserted of it) and God too must have this knowledge as well, in order that He may select one set of possibles from among the infinity of conceivable possibles. If He lacked such knowledge it would not be possible to choose any world and, since He obviously has chosen, He obviously does possess the knowledge required.

What is entailed by this, however, is that every action of every creature and every state of affairs which has, is or will occur in this world, is already completely determined. It must be emphasized also that the complete determination of this world is not the result of an act of God. Rather, the very nature of possibility and compossibility (that is, the possibility of things co-existing) as consequences of the eternal verities or truths of reason, which are absolutely necessary, entails that the concepts or essences of everything, both created and uncreated, be complete prior to any consideration of them or in spite of whether or not any particular group of possibles is ever actualized. For Leibniz then, contrary to Spinoza, it is not God, but the laws of reason which are responsible for the existence of essences as such. God is permitted merely to create those essences which constitute the best possible collection.

This total metaphysical determination has a parallel in the total causal determination in the physical realm; which

constitutes the ground for the possibility of physics.

The harmony which exists between the various levels in Leibniz's philosophy entails also that there be complete determination at the moral level as well.

Leibniz's acceptance of the view which I have just summarized, leads to two related difficulties for him. The first we may regard as the problem of human freedom (or of how it is possible for there to be anything truly moral at the human level). Leibniz states the problem thus;

> "...man's freedom...appears incompatible with the divine nature; and nevertheless freedom is deemed necessary, in order that man may be deemed guilty and open to punishment." (Th. Sec. 1).

The relationship between freedom and God's nature is not, of course, as direct as it appears in the above quotation. We are not determined by God, but we only have being because God knows our entire nature from our completely determined concept.

The second difficulty has to do with the very nature of God Himself. In moving away from the God of Descartes, who would be equally worthy of love had He created precisely the opposite values which He did, it appears that Leibniz has created a slave of reason. That is, a Being both necessary and necessarily perfect has been presented with a set of possible existents, by their natures the best possible, which is, it seems, a sufficient reason for actualizing them. Must He not, of necessity, actualize them? A God who has no choice does not appear to be a significant improvement upon a God for whom

all choices are a matter of total indifference.

Leibniz's solution to the problem of human freedom is simple, if somewhat perplexing. He readily admits that we are determined in all of our actions but that freedom, as he uses the term, is not the contrary of determinism but of necessity.

> "...(T)he human soul is a kind of spiritual automaton, although contingent actions in general and free actions in particular are not on that account necessary with an absolute necessity..." (Th. Sec. 52)

Though it is not, in fact, possible for us to act any differently than we do, it is, at the same time, not in itself logically self-contradictory for us to act differently.

Different actions on our part would, however, imply that we ourselves are different and thus part of a different world. Any world other than this is not, however, the best possible one (or else it would have been created in place of this one) and so it is certain that God would not create it (although it is not absolutely necessary that He not do so, Leibniz would claim).

Leibniz is, in fact, thoroughly convinced that the account of freedom which he gives is completely adequate to guarantee the possibility of morality.

> "(F)reedom,...,consists in intelligence, which involves a clear knowledge of the object of deliberation, in spontaneity, whereby we determine, and in contingency, that is, in the exclusion of logical or metaphysical necessity ....The free substance is self-determining and that according to the motive of good perceived by the understanding, which inclines it without compelling it: and all the conditions of freedom are compressed in these few words." (Th. Sec. 288).

The relation between these three factors is the key to Leibniz's notion of human freedom. Leibniz does not regard our actions as absolutely necessary, nor are they necessary by reason of external constraint. That is, as with the freedom of substance for Spinoza and the freedom of man and God for Descartes, Leibniz too makes the minimum negative demand that free creatures not be constrained by anything external to them. Leibniz's created substances also resemble the substance of Spinoza in that it is a part of their very nature that nothing external can affect them in any way, much less put constraints upon their ability to act, except God.

The demand by Leibniz that there be a sufficient motivation for action, at first glance resembles that of Descartes (see above pp. 26-27), but it must be remembered that, for Leibniz, the principle of sufficient reason contains provisions which are not found in the philosophy of Descartes. Most important here is the fact that not only does a merely sufficient reason not necessitate any particular action, it cannot. Necessity for Leibniz relates to the explicitly analytic, to things whose contraries can be shown to be self-contradictory. All specifically contingent truths are, however, infinitely complex and cannot be totally analyzed, even by God. Thus, for Leibniz, although it may be known that as a result of my nature I will on some particular occasion act in such and such a determinate way, this knowledge is not capable of being expressed analytically and so my act is free.

Despite the fact that the distinction which Leibniz

makes between certainty or determination and necessity is a legitimate one in the context of his philosophy, it may still appear that Leibniz has saved freedom in name only and that, in fact, his philosophy entails that our actions arise out of the same sort of absolute necessity which he personally so abhorred in the philosophy of Spinoza. Surely if God always 'sees' the truth without failure (and by implication that truth is there to be seen) all talk of whether or not man is free is a dispute about terminology and nothing more.

Of course, Leibniz does wish to claim that there are no undetermined events; this is at the very heart of his Rationalism. There can, for him, be no exceptions to the principle of sufficient reason.

If one wished to protest that a reason is not a cause and hence cannot compel in the same way that causes do (or appear to do) in the physical realm, it can only be repeated that, for Leibniz, the strongest compulsion springs from truths of reason and that physical laws are mere representations of metaphysical ones.

The question, however, persists of just how much credence we may give to Leibniz's assertions that in his system both God and man retain the freedom which they are denied by others. Even granted the distinction between truths of reason and those of fact, the possibility of some form of human freedom would seem to depend upon the resolution of the second difficulty mentioned above, that of whether we can attribute any freedom to God as creator.

We have already seen the complete subservience to reason in one of its two guises submitted to by all of the entities in Leibniz's metaphysical scheme. It appears as well that the truths of reason, or the eternal verities occupy a position of compulsion with respect to God. Now although Leibniz represents the culmination of the Rationalist movement begun by Descartes, this final move of subjecting God to reason appears clearly excessive, especially given Leibniz's often expressed desire to provide a justification for faith.[1]

Leibniz's position with respect to what we may regard as an issue at the very heart of his Rationalism is, regrettably, far from clear. There appears to be no question that God is compelled to act upon His knowledge of what is best, just as it is necessary for Him to have that knowledge. At the same time, however, Leibniz clearly does not wish to elevate reason above the head of God.

> "...(I)t is, in my judgement, the divine understanding which gives reality to the eternal verities, albeit God's will have no part therein. All reality must be founded on something existent ....without God, not only would there be nothing existent, but there would be nothing possible." (Th. Sec. 184)

We have, at this stage, entered a circle that cannot be broken out of. The grounds of necessity, and therefore of the necessity of God's existence; that is, the eternal verities, exist as objects of God's understanding. If God does

[1]Indeed, the initial segment of the Theodicy following the authors preface is entitled "Preliminary Dissertation on the Conformity of Faith with Reason".

not exist, nothing can exist, not even reason, the possibility of reason or even bare possibility. God does not, of course, create these truths of reason, they simply <u>are</u> when He is. They are dependent upon God for their reality, not in any causal sense, but simply as an ontological support of some kind.

There seems then, in the last instance, to be no clear separation between the status of God and reason in terms of the necessity of their respective existences (indeed, for Leibniz to talk of necessity must presuppose them both). The question of whether or not God is compelled to act in any absolute or logical sense appears as one which can not be regarded as meaningful for Leibniz.

In conclusion, it appears that Leibniz, in attempting to steer clear of the errors which he found in the works of Descartes and Spinoza, and yet pursue the quest for the understanding of what is (along the same Rationalist path which those two followed), has gone as far as could be hoped, bringing into question at the last just what the relation is between reason, as he understood it, and the world which reason permits us to know.

Leibniz's attempt to perfect the methodology of Descartes, and the conclusions which Descartes reached are, in the context of Leibniz's philosophy, of two-fold importance. First, Leibniz's sophistication of Cartesian epistemology led, as I have argued, to his making the fundamental distinction between truths of reason and those of fact which was, for him, the keystone of his attempt to preserve an epistemological foundation

for human freedom.

Secondly, his dissatisfaction with the Cartesian notion of substance, leading as it does to the problem of mind-body interaction, coupled with his investigations in physics, may be regarded as providing impetus for Leibniz's development of his own metaphysical view.

From the revisions made to Cartesian metaphysics and the innovations in physical theory, there is, I think, a clear connection with the notion of pre-established harmony. That is, Leibniz's Rationalism demands that a complete account be given of the nature of things while at the same time precluding anything like Descartes' interaction of substances. The harmony which exists between reality and appearances in Leibniz's philosophy is facilitated by his conception of the nature of truth as fundamentally analytic and hence knowable a priori.

With respect to Leibniz's assertion of the concept of individual substance, the influence of Spinoza was also of importance, though it appears in a chiefly negative way. Spinoza's assertion of the existence of only one substance to the exclusion of all others and the necessity of all things following from the nature of that substance may be regarded as spurring Leibniz on to demonstrate, by the presentation of his own alternative system, how Spinoza must be wrong. Spinoza may thus be regarded as a key influence in the development of Leibniz's doctrine of monads and his assertion of their freedom.

Although Leibniz can philosophically be said to have scored some success with respect to his correcting the errors

of his predeccessors within the Rationalists tradition, the general impact of his thought with respect to the relationship between freedom and determinism is by no means clear. His distinction between truths of fact and those of necessity, though valid within the context of his own philosophy, is not one which could, I think, have much of a future outside of his Rationalism or something very much similar to it.

Similarily, the attempt to formulate some strong link between merely logical truths and God's nature appears now as a peculiarly Rationalist endeavour. Although Leibniz ultimately leads us to the question of the relationship between God and reason, on which hinges, I think, the possibility of freedom in his philosophy, it represents the limit to which he is capable of carrying his investigations and I find no clear answer to it in his writings.

In closing, it should be pointed out that the problem of the existence and nature of freedom is as pressing now as it was in Leibniz's day. In the face of the great successes won by modern science since its origins in the sixteenth and seventeenth centuries, the encroachment of causal explanation into the once-safe preserves of the spirit represents to us a challenge similar to that which Leibniz felt was presented to him by the absolute necessity which he detected at the heart of Spinozism.

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