SUBSTANCE, MONADS, AND PARTICULARS

We usually take ordinary objects to be things which we see and experience from day to day such as trees, houses, musical instruments, automobiles, persons, plays, etc. One way of looking upon an ordinary object is as a complex thing made up of various parts. For example, a tree contains branches, leaves, a trunk, and roots in the ground. A person is composed of various parts of the body which the anatomist studies, the various mental activities that the psychologist studies, and the various actions the person performs which are studied by the anthropologist, the sociologist, the economist, etc. Not everyone agrees that ordinary objects are complex entities which are composed of constituents which can be found out by a part-whole analysis, but for those who do believe in such an analysis a number of questions arise, the last two of which go beyond a part-whole analysis.

1. What are the various constituents of an ordinary object and how are these constituents grouped together, classified, or described ?
2. Is the object composed of anything besides these constituents, i. e., upon analysis or some other method, can anything be detected about the object which is not a part of it ?
3. What is the relationship between the object, its constituents, and other things which are not a part of it ?

In answering these questions I will take into consideration the views of three philosophers—Aristotle, Leibnitz, and Bertrand Russell—who have made important contributions to answering one or more of these questions. I shall point out where each of them has failed and then propose an answer of my own.

For Aristotle an ordinary object contains a number of constituents. These constituents can be identified by one or more of the categories (substance, quantity, quality, relation, etc.) that he mentions in the *Organon*. All the categories other than substance can be predicated of substance whereas substance itself cannot be predicated of anything including itself. Aristotle divides substance into primary and secondary substance. Secondary

substance, such as man, can be predicated of primary substance, such as John, but primary substance cannot be predicated of anything else. By primary substance Aristotle means the form or essence of a thing. The essence is not the concrete particular thing or ordinary object, but it is not separate from the thing. The concrete thing, such as a particular man or a particular horse, is a collection of qualities which has a particular form. Two objects of different species, such as a man and a horse, differ from one another in their essence. What becomes confusing about Aristotle's analysis of ordinary objects is his assertion that the form which is essential to a particular thing, such as a man, is also common to all things of that species. That is to say, the form of a man does not exist apart from that man yet it is commom to all men. Aristotle is confused, I believe, because he does not recognize that he is using two different meanings of the word 'form.' One use of the word 'form' means the form of an individual, concrete object. By 'form' here he does not mean the concrete thing as such, i. e., the form taken with the matter. Rather, he is speaking of the form or essence without the matter. This use of 'form' is taken by Ross to mean a principle of structure of the concrete thing.[1] Another use of the word 'form' means the species, that to which two or more individuals of the same type belong. This use of 'form' indicates something over and above the form of the concrete thing or something in which the form of the concrete thing shares. These uses of 'form' are different, but there is one thing they have in common. They both attempt to express essence (what a thing is) whether we are talking about the species or a member of the species. The form, though, cannot be both particular and universal. The same form cannot be in one individual and in every individual of the same species. Either there is one form or more than one form. Although Aristotle in talking about substance says : '....that which is one cannot be in many places at the same time.' (1040b 25-27) he himself takes form or essence, the most primary meaning of substance, to be both one and in common, both particular (in one individual) and general (in more than one individual at the same time). Probably what Aristotle should have done was abandon the second use of the word

'form,' but he was not able to do so because he defines the form or essence in terms of the species. Aristotle's inability to state clearly and unambiguously what the form is certainly brings into question the correctness of using his categories or at least one of his categories to analyze ordinary objects.

Leibnitz avoids the confusion over form and essence by introducing the monad, a unity with diversity. The monad is a simple substance without parts but with affections and relations. For Leibnitz ordinary objects are composites or aggregates of monads. Ordinary objects are composed of monads since monads make up all things. Rescher points out that there are two types of monadic aggregates : mere aggregates and real unities.[2] Monads can be externally united in being perceived as one thing by an external observing monad or internally and genuinely united by the mutual perceptions of the component monads. A mere aggregate such as a stone or a knife is comprised of a collection of monads whose perceptions of one another's instantaneous states exhibit a certain degree of mutual similarity and concordance. By virtue of their similarity in points of view, the entities involved appear to each other and to others as a unified whole. But actually they are unified only accidentally. There is no principle of unification. Mere aggregates are united more like the way grains of sand unite into a beach than the way organs unite into a man's body. The individuality of an aggregate is only perceptual, not actual. We do not perceive the monads because they do not have extension, shape, position, and movement. What we perceive are bodies which have extension, shape, position, and movement. What we see are not realities but only phenomena or appearances. The appearances of things are due to the imperfect way in which we perceive them, e. g., extension is the representation of things as outside one another.

Mere aggregates then are not really individual things, but real unities are more than just phenomenal. These unities are intrinsic and actual. There is an inner accord of the constituents of the aggregate. A drop of water, a grain of sand, and a tree are individual things, but a cloud, a heap of sand, and a strand of trees are not. The former is a unified aggregate; the latter is a disjointed aggregate. The former has a causal

or perceptual unity; the unity of the latter consists merely of presence or of place. In a real unity what is done to one part affects another, e. g., when pressure is applied to one point of a drop of water the others are deformed.

Martin says that for Leibnitz there are two sorts of unity—*unum per se*, the individual living creature, and *unum per accidens*, the aggregate, local unity or unity of presence, such as a heap of stones or the parts of a clock.[3] He says that according to Leibnitz living creatures (human beings, animals, and plants) are the only unities which are wholes, and the term he uses for them is monads.

Hacking stresses the point that individual substances are active principles of unity.[4] They are active in the sense of having laws of their own. The laws of a clock differ from those of a stone which differ from those of an animal. Only the latter, though, is a true unity. Hacking also says that substances are bundles of attributes but not all bundles of attributes are substances. Only active principles are.

One way in which an aggregate can achieve a unity is by virtue of the presence of a dominant monad (entelechy). Some monads dominate others. A dominant monad because of its hierarchic structuring can perceive with a high degree of clarity all the other monads of the system. The dominant monad in plants or animals is a soul; in man it is spirit or reason. C. D. Broad says that an entelechy is the soul or nature of an individual monad, while a dominant monad is the soul of the individual composed of itself and the subordinate monads which constitute its organism.[5] According to Broad when Leibnitz says that an entelechy is the soul of an individual monad he is speaking in terms of the Aristotelian theory that soul and body are not two substances but are the form and stuff in a single substance.[6] When he says that a dominant monad is the soul of a man he is speaking in terms of the Platonic and Cartesian theory that a soul is a substance or collection of substances. Leibnitz, Broad says, accepts both views, one for the internal structure of the individual monad and the other for the relation of soul and body.

There is a difficulty, I believe, with Martin's and Hacking's interpretations. A human being, an animal, or a plant may be more active or unified than a heap of stones or the parts of a clock, but they are not true unities. Leibnitz holds that only monads are true unities, and a human being or an animal is made up of parts which are monads. Secondly, if Rescher means that individual things (a drop water, a grain of sand, etc.) are monads he is wrong, but if he means, as I believe he does, that they are just more unified aggregates than others (a heap of sand, a strand of trees, etc.) then he is right. Thirdly, it appears that Broad is mistaken. In a supplement to a later letter Leibnitz points out the difference between a simple substance and a composite.[7] A composite is an organic being but not a collection of substances like a house. Only the composite and not the simple substance is composed of primary matter and substantial form.

Leibnitz also provides an answer to the third question of this paper. According to him every single substance stands in relations which express all the others. Every substance represents every other substance more or less distinctly. Rescher says that according to Leibnitz the only relations that hold among substances are those that are reducible to and derivable from predications about the respective substances.[8] For example, to say that x is the father of y is to say that the physical make up of persons x and y is such that by careful analysis of their respective traits, their kinship relationships can always be determined. Paternity in x is one thing and filiation in y is another. The relation common to both is a mere mental thing. Hintikka and Ishiguro disagree with Rescher. Hintikka believes that relations are indispensable for characterizing individual substances.[9] He says that Leibnitz was not trying to reduce relations to non-relational predicates but rather to reduce relational statements in which a complex predicate, possibly involving relations, is attributed to a single subject. Ishiguro says that Leibnitz did not believe that one can achieve a complete description of a substance without referring to its relational properties.[10] He believed that all true relational predicates of an individual can be drawn out of the concept of the individual because they are already parts of it. My purpose here is not to examine Leibnitz's doctrine of relations

in detail but merely to say that Hintikka's and Ishiguro's interpretations are more accurate than Rescher's in expressing the view that every substance represents every other substance. This will be borne out by later remarks.

Leibnitz's main contribution is his answer to the third question, namely, that certain substances represent others. His main difficulty is that he holds ordinary objects to be unreal. Aristotle held that they were real but he was confused about their essence. For Leibnitz monads are the only true unities and hence are the only ultimate things that are real. Monads are simple, indestructible, impenetrable, and independent. Ordinary objects cannot be so described. Ordinary objects have parts; they come into being and pass away; most of them can be penetrated; and we generally regard them as being dependent (a tree needs things other than itself in order to survive). Ordinary objects are aggregates, and although it may be true to say that some aggregates are more unified than others, none have the complete unity of a monad. In contrast to Leibnitz I believe that it is the case that ordinary objects are real, not because they are mental objects but because they are represented by what is in the mind. I will talk more about this later.

Russell takes ordinary objects to be complex entities bound together into some sort of unity. Complex entities are series or classes of material objects which for the most part occupy a certain portion of the earth's surface. In 'The Philosophy of Logical Atomism' Russell holds that series and classes are of the nature of logical fictions and then turns his attention to analyzing facts. He believes that the analysis of complex things can be reduced to an analysis of facts which are about those things. He says :

> .. all the ordinary objects of daily life are extruded from the world of what there is, and in their place as what there is you find a number of passing particulars of the kind that one is immediately conscious of in sense.[11]

A fact such as a book being red or one person being taller than another is expressed by a proposition stating that something has a certain property or has a certain relation to another thing. This something is a particular which stands entirely alone

and is completely self-sufficient, i. e., one particular does not logically depend on another. Particulars, unlike substances and monads, only persist for a very short time.

Gustav Bergmann presents us with a further development of Russell's view. The constituents of a fact for Bergmann are an individual, such as a spot, and a character, such as the spot's color. These he calls things. Other constituents are individuality, universality, and the nexus of exemplification. These are not things but logical features. Bergmann adds still other constituents such as logical connectives, diversity, and sameness. He accounts for two ordinary objects being similar, such as two spots being red by a single entity which is in both of them, namely, redness. Such an entity is a universal. Also he accounts for two objects being different. There are two constituents, one in each spot, namely, a particular. Such an entity is an individual. Individuals are simple and bare. A bare particular is a single individuator of a momentary cross section of an ordinary object. Facts then differ from one another by a thing which is in it called an individual or bare particular.

A number of criticisms can be made of the Russell-Bergmann notion of fact. (1) Facts are different from ordinary objects. They need only tell us one property of an object and hence provide us with a narrower explanation of things. Certainly an explanation of a tree cannot be exhausted by a particular and a property or two particulars and a relation, nor even by many particulars and properties. The question is how can we decide how many facts make up an ordinary object. Maybe facts are an inappropriate way to explain ordinary objects. Quine says that Russell's predilection for a fact ontology depended on a confusion of meaning with reference.[12] What strikes Quine as odd about 'The Philosophy of Logical Atomism' is how the analysis of facts rests on the analysis of language. (2) Grossmann states that an ordinary object is not a fact but a simple thing without any constituents.[13] He believes that the bare particular is the individual thing itself and not a part of it. Since individual things do not have any constituents, what makes them different from one another is just that they are different, ordinary, individual things. The next two criticisms are attempts to answer the second question of this paper

(3) Hochberg says that a fact is something in addition to its constituents.[14] It is the constituents structured or connected in a certain way. It is the way in which the constituents are arranged and the arrangement is not itself a constituent. What individuates a fact is the structure of the constituents and not the constituents themselves. Hochberg also holds, as opposed to Bergmann, that an ontological tie holds only between universals.[15] It connects universals together. It does not combine a substratum and a universal into a fact. (4) Butchvarov says that there is a fundamental difference between a fact and the collection of its constituents.[16] No list of constituents exhausts the nature of a fact. Not all objects of our understanding have parts, and we do not always seek to understand an object by understanding its parts. The analytical understanding rests on an analogy. It seeks to understand an object in terms of its similarity to a whole consisting of parts, but it is not committed to regarding the object as a whole consisting of parts.

Russell and Bergmann offer us a more precise and exact interpretation of an ordinary object but this interpretation has its limitation because it presents us with only a partial analysis of an ordinary object, because it does not take into consideration that there may be something in addition to its constituents, and because the part-whole analysis is simply one way in which we may view ordinary objects. Divergent views result when this interpretation is criticized, and it seems unlikely that any agreement can be reached.

I belive that a'l three of the philosophers I have discussed, in one sense, offer us a part-whole analysis of ordinary objects. Aristotle gives us a list of categories which can be expressed in language by subjects and predicates. Any one of the categories other than primary substance may be predicated of and/or present in primary substance. Each object can ultimately be distinguished by its primary substance. Any object then is composed of primary substance and what is expressed by any one or more of the other categories. Leibnitz offers us monads and aggregates of monads. According to him the latter have parts but the former do not. The former have properties which distinguish one monad from another. These properties are

expressed by predicates. The monad as such is expressed by a subject, but the monad is nothing more than the collection of all its properties and relations. Thus the subject does not really refer to anything other than the collection of properties. Russell reduces ordinary objects to facts and their constituents. Facts are expressed by propositions which also have constituents. One fact ultimately differs from another by its particular.[17]

Leibnitz, though, is the only one who offers us more than just a part-whole analysis of ordinary objects. I do not believe that a part-whole analysis is necessarily bad, but I do believe that it gives us, as we have seen, limited and conflicting viewpoints. For Leibnitz every substance represents every other substance more or less distinctly and that relational statements are statements in which a complex predicate is attributed to a single subject. For example, in the sentence 'Robert sees that Mary is taller than Jim,' the complex predicate is the part of the statement that follows 'Robert.' The relational predicate 'is taller than,' like other predicates, expresses a property which is already in the individual and cannot be taken out, e. g., Mary's height is already present in Mary, but that she is taller than someone else is not taken into consideration until she occurs in relation to someone or something else. In order for one substance to represent something external to itself, the substance which does the representing must be a mind or have mind in it. It cannot be an inert substance but an animal or man.

Leibnitz does not tell us specifically how one substance represents another. I want to suggest that a representation between one substance and something external to it can be expressed by sentences of the form 'I see (think, believe, etc.) that such and such a thing is so-and-so' or 'I see (think, believe, etc.) that such and such a thing is related to something else.' It is interesting to note that neither Aristotle's primary substance nor Russell's particular (nor Bergmann's bare particular for that matter) represent another substance or particular. Aristotle's substances and Russell's particulars may be entities which serve as relata but are not construed active enough to represent another substance or its properties.[18] The predicates of Aristotle's subject and Russell's subject indicate only properties about those entities, whereas Leibnitz's predicates, in addition to telling us

about the subject at issue, also tell us something about another substance. How are predicates able to do this ? In the above formulation the predicate 'see' ('think,' 'believe,' etc.) describes a state of mind of the individual. The rest of the predicate describes the content or intention of the particular mental state of the individual. The intention can be said to represent a substance or its property which is outside the mind of the individual, e. g., the intention of the mental state, 'seeing,' could be Mary has dark hair or she is taller than Jim. This representation can be more or less distinct, more or less perfect. It is not the case that the representation is true or false, even if it could be stated that way. What is represented and what represents are two different things. Rather the representation is a matter of degrees.

There are different kinds of relations. One kind is of the form 'x is taller than y' or 'x is the mother of y.' This is the way we ordinarily think about relations. Another kind is a more fundamental one. It is the kind Ishiguro talks about when she says that perceptions are relational facts.[19] When a person perceives, he has in the mind a representation of phenomena which belong to the outside world. There is a relation holding between the perceiver and external objects. The predicate expressions 'perceives' and 'perceives something' express relational predicates. Also when we make a reference to a perceptible quality we are referring to a relational fact. She does not go into much detail or explain this view. I think that it is more fully explained by Bergmann. There are a number of problems with Bergmann's view, but I think he is basically right about there being intentional objects and their nature being different from physical or external objects. The former are in the mind; the latter are not. He does not say however that the former represent the latter. He argues against representationalism.[20] I hold though that the intentional object represents the ordinary object and parts of it. How do I know this ? The ordinary object is not in my mind, although a representation of it or of its various properties are. The representation comes from my perception of the object. The representation is a relation between what is in my mind and what is outside my mind, i. e., between the intentional object and the

ordinary object. The intentional object is mental; the ordinary object is not. Only real things (minds) can represent real things (other minds or bodies). Nonexistent objects cannot be represented by anything. Minds are real and what they represent are actual, existing objects. Thoughts about nonexistent objects arise from confused or inadequate ideas in the mind.

Ishiguro further says that what really exists as basic constituents of the world for Leibnitz are individual substances. All other things we refer to, whether relations or qualities, are only made by our abstraction from the fact that the things we perceive have these properties.[21] Abstractions are modes of things. Modes are usually just the relation of a thing to the understanding. She says that although relational properties are not things which exist over and above substances, they are real. Their reality consists in the modification of individual substances and in the harmony or agreement between them. [22]

It is true for Leibnitz that only individual substances exist in the most primary sense of 'existence,' but these substances have affections and relations. Minds as well as bodies have certain qualities and relations which belong to them by their very nature, but these are not merely abstractions or modes of other substances. Ishiguro does not see the differenee between affections and relations existing in one mind and affections and relations existing in another mind or ordinary object.

Leibnitz is right when he says that ordinary objects are complexes made up of simples. He is wrong though when he says that ordinary objects are not real. Both ordinary objects and their parts are real. The reason that Leibnitz makes this mistake is because he does not recognize that intentional objects represent ordinary objects and their parts. I hold that ordinary objects are real because when one goes into detail as to how one substance represents another one finds that intentional objects represent objects and their parts, and this representation can be expressed by sentences of the form 'I see (think, believe, etc.) that such and such a thing is so-and-so' or 'I see (think, believe, etc.) that such and such a thing is related to something else.' Some ordinary objects such as animals and men have minds which represent things other than themselves. Minds are also real and

represent ordinary objects or parts of them. Intentional objects are not parts in the conventional sense, i. e., the mind does not consist of parts nor is it similar to ordinary objects which contain parts. The mind, which represents external objects, has its own affections and relations. Its affections are such things as seeing, thinking, and believing and what is seen, thought, or believed. Its relations are representations. The mind in its perceptions expresses another mind or an object which has its own affections and relations. Ordinary objects are independent of these perceptions and may be continuously changing without receiving any influence from the mind.

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NOTES

1. David Ross, *Aristotle*, 5th ed., London : Methuen, 1949, p. 172. Ross says that Aristotle's essence is not to be thought of either as a component existing alongside of the material component or as itself consisting of material components. He believes that we must go beyond any materialistic understanding of the essence and treat it as the principle of structure of the concrete thing.

2. Nicholas Rescher, *The Philosophy of Leibnitz*, Englewood Cliffs : Prentice Hall, 1967, Chapters 7 and 9.

3. Gottfried Martin, *Leibnitz : Logic and Metaphysics*, translated by K. J. Northcott and P. G. Lucas, New York : Barnes and Noble, 1964, pp. 114-117.

4. Ian Hacking, "Individual Substance," in *Leibnitz : A Collection of Critical Essays*, edited by Harry G. Frankfurt, New York : Doubleday, 1972, pp. 146-151.

5. C. D. Broad, *Leibnitz : An Introduction*, edited by C. Lewy, Cambridge University Press, pp. 89-90.

6. Broad notes that Leibnitz later changed his view regarding the monad. In his letter to de Volder, June 20, 1703 Leibnitz talks about the complete monad being made up of the primi-

tive entelechy or soul and primary matter or primitive passive power. Broad uses this distinction in the monad to show a similarity between Leibnitz and Aristotlte.

7. *Leibnitz : Philosophical Papers and Letters*, translated and edited by Leroy E. Loemker, University of Chicago Press, 1956, Vol. II, p. 1003. This view was expressed in a supplement to a letter to Des Bosses written August 19, 1715 and seems consistent with Leibnitz's earlier view.

8. Rescher, *op. cit.*, p. 75.

9. Jaakko Hintikka, "Leibnitz on Plentitude, Relations, and the 'Reign of Law'," in *Leibnitz : A Collection of Critical Essays*, *op. cit.*, pp. 161, 168.

10. Hide Ishiguro, "Leibnitz's Theory of the Ideality of Relations," in *Leibnitz : A Collection of Critical Essays*, *op. cit.*, p. 194.

11. *Logic and Knowledge, Essays* 1901-1950, edited by Robert C. Marsh, New York : MacMillan, 1956, p. 273.

12. W. V. Quine, "Russell's Ontological Development," *Journal of Philosophy*, V. 63, 1966, p. 665.

13. Reinhardt Grossmann, "Bergmann's Ontology and the Principle of Acquaintance," in *The Ontological Turn : Studies in the Philosophy of Gustav Bergmann*, edited by M. S. Gram and E. D. Klemke, Iowa City : University of Iowa Press, 1974, pp. 100-101.

14. Herbert Hochberg, "Intentions, Facts and Propositions," in *The Ontological Turn*, *op. cit.*, p. 178.

15. Herbert Hochberg, "Things and Descriptions," *American Philosophical Quarterly*, V. 3, 1966, pp. 41, 43.

16. Panayot Butchvarov, "The Limits of Ontologieal Analysis," in *The Ontological Turn*, *op. cit.*, pp. 26-33.

17. Russell did not always hold this view. He tells us that he later adopted a new hypothesis in which there is no need of particulars as subjects in which qualities inhere. Bundles of qualities can take the place of particulars. See his *My Philosophical Development*, London : George Allen and Unwin, 1959 p. 161.

18. Aristotle's substance is certainly active but it is not active in the sense of representing something else. Aristotle's substance is an originative source or cause. It is that which makes things what they are. The essence is usually taken to be a final or efficient cause.

19. Hide Ishiguro, *Leibnitz's Philosophy of Logic and Language*, Ithaca : Cornell University Press, 1972, pp. 80-81.

20. Gustav Bergmann, *Realism : A Critique of Brentano and Meinong*, Madison : University of Wisconsin, 1967, Part II.

21. Ishiguro, *Leibnitz's Philosophy of Logic and Language*, *op. cit.*, pp. 102-105.

22. Martin holds a view similar to Ishiguro's. He says that a relation is not an absolute reality in things themselves but a determination which thought brings to things. See his *Leibnitz : Logic and Metaphysics*, *op. cit.*, pp. 144-152.