### SINGULAR AND PARTICULAR

ROBERT S. HARTMAN Universidad Nacional Autónoma de México.

That which is common to everything, and which is equally in the part and in the whole, forms the essence of no individual thing. Spinoza.

We shall in this essay discuss some aspects of logic which have been neglected in the rush toward extensionality —a development which philosophers not committed to the exclusively mathematical interpretation of logic, such as Husserl, have called a "bedenkliche Umdeutung" (dubious misinterpretation) of logic. In the process, we shall discover some paradoxes overlooked by extensional logic and clarified only when logic is used both extensionally and intensionally (where by extension and intension we mean aspects of the concept, not of the proposition). In particular, we shall examine the ancient puzzle of the relationship between singular and particular. What does the proposition "Socrates is a man" mean logically? "Socrates" is a proper name, "man" is a general name. In which way, if any, can the two be combined? The referent of "Socrates" could be met in the streets of Athens, but it is impossible, as Russell rightly emphasized, to meet the referent of "a man" in the street. While symbolic logic, in its exclusive emphasis on mathematics rather than meaning, has disposed of the problem —general names merely denote classses and their definitions are irrelevant<sup>2</sup> and proper names name non-descript entities

<sup>&</sup>lt;sup>1</sup> Edmund Husserl, Formale und transzendentale Logik, Halle, 1929, pp. 65, 73.

 <sup>65, 73.
 &</sup>lt;sup>2</sup> Cf. Bertrand Russell, Principles of Mathematics, Cambridge, 1903, pp. 27, 111 f.

indistinctly called both "individuals" or "particulars"—logic in general is still bothered by the problem. The problem has not yet been solved. From our inquiry it will result that "Socrates" and "man" refer to incompatible logical dimensions and that they can be combined in a proposition only when these dimensions have been made compatible. This presupposes a new as yet unwritten branch of logic; and unless this reconstruction of logic is made, the proposition "Socrates is a man" is logically invalid; and to say "This is a man" is empirically false.

1

The separation of thing and name is not a matter of course. In primitive languages thing and name are identical; to name the thing is to act upon it. Each thing has its own proper name, and there are no names but proper names, or rather proper things (or thing-names or name-things). Abstraction separated thing and name. The thing became an instance, the proper name a general name or concept. The process from thing to instance was a process of isolation: within the thing a section became isolated which served as structural counterpart of the concept. This section has been called the *schema*. At the same time, the process from proper name to concept was one of generalization: the concept came to stand for all those atributes which all "such" things have in common. Abstraction is thus, on the side of the thing, isolation or schematization and, on the side of the proper name, generalization. The schema is that within each individual thing which has the common properties expressed in the concept, it is the thing as instance of the concept, as a particular. The totality of all these schemata ---which are all exactly alike and hence, thought of as superimposed one upon the other,

<sup>&</sup>lt;sup>3</sup> Bertrand Russell, *Human Knowledge: Its Scope and Limits*, New York, 1948, Part IV, Chpts. III VIII.

<sup>&</sup>lt;sup>4</sup> For details see Dorothy Lee "Being and Value in a Primitive Culture", Journal of Philosophy, Vol. XLVI, No. 13. Also the various accounts of Malinowski, e.g. in Ogden-Richards, The Meaning of Meaning, New York, 1946, Supplement I.

are only one single schema— is the extension of the concept. This extension is never the actual things to which the concept seems to refer, but only the class schemata within these things. Extension is the instantial counterpart, the isomorphic pattern of reference, of the intension of the concept. The intension, in turn, is the definition of the concept, that is, the translation of the schema into the medium of language. The intension of a general name in one sense refers to many instances, in another it refers to only those attributes which all these instances have in common, the one schema.

Let us illustrate by an example which is not the controversial term "man". The general name "cow" means only those attributes which all cows have in common, i.e. cowness. Strictly speaking, then, what in extension corresponds to the intension of "cow" is never a cow, that is, any individual cow, but only that in any individual cow which corresponds to the intension of "cow", namely, the individual cow's cowness or cowy attributes, in a word the schema cow. The individual cow, Frieda, has many attributes which are not part of the intension of the general name "cow". In as far as Frieda has the cowy attributes, Frieda is not Frieda but a cow. In addition, Frieda has infinitely many other qualities which the old logic called accidents —that make up Frieda rather than Jane or Clarabelle. As a cow, Frieda is exactly the same as Jane and all other cows; they are all instances of "cow" possessing cowness. But as Frieda Frieda is unique. She is not an instance of "Frieda" for there is no other such instance; and to say that she is the instance of "Frieda" would give the term "instance" a sense it does not have, for the term "instance" presupposes at least one other instance ("stand-in"). She is an individual. Of course, we may construct "Frieda" as the name of a unit class whose member is Frieda. But in this case, the schema of Frieda being identical with Frieda, is the set of infinite properties of Frieda and the intension of "Frieda" is equally infinite. This infinity, intensionally, gives Frieda her uniqueness; and extensionally or schematically, her singularity. Her individuality

is then the combination of her uniqueness with her singularity.

The individual, of course, does not disappear in the process of abstraction. It is still there. But a language which speaks mostly in general terms is apt to overlook this. For the individual is never, as such, subject of the concept or general name. It is subject of the proper name. Yet, we do make it subject of the general name, and hence arise confusions which only an intensional logic can set straight.

When we say: "Frieda is a cow", we do mean Frieda, and all of her, even though Frieda never is and never can be a cow. For a cow is only that within her which corresponds to the concept "cow", that is, her cow-schema. Only the cow schema of Frieda is, strictly speaking, a cow. But we do not speak strictly. Our language is adapted to the empirical world, and in the empirical world there are no schemata, only individuals. Hence we are inclined to confuse the schemata with the things that have them. Even logicians sometimes say that general names refer to individuals whereas, in fact, only proper names do and general names refer to schemata and to schemata only.

It is the characteristic of schemata that they perfectly correspond to the definition of the concept; for it is by virtue of this congruence that they are schemata. Individuals, on the other hand, perfectly correspond to their proper names, whose intension is the infinity of all their properties. Such intensions we may call complete descriptions (in Moore's not in Russell's sense) or depictions. The complete description is to the individual as the definition is to the schema: the translation of its structure, or Gestalt, into the medium of language, "with warts and all". Since the individual is a continuum in space and time, the complete description or depiction isomorphous with it, must be a continuum in the medium of language. The individual has no definition, as

On infinite intensions see Benno Erdmann, Logik, Halle, 1907, Chs. 21, 24.
 For details see Benno Erdmann, loc. cit., and Robert S. Hartman, The Structure of Value, Southern Illinois University Press, Carbondale, Ill., 1967, pp. 113, 195, 201, 265, 331 (in the following cited as The Structure of Value).

has the particular, and only a complete description or depiction which must be a word continuum. The particular is not in space and time, the schema is a definitional construction; and it is for this reason it cannot be met in the street.

The difference between particular and individual only exists in thought. In reality there are only individuals, and particulars are insolubly intertwined with them. As a result, there arises a confusion which is necessitated by the very structure of our world —and one which is self-correcting. The means of this self-correction are the value words.

Individuals can be imperfect, but never as individuals. Frieda can be imperfect but never as Frieda, only as a cow when she gives bad or little milk. In this, Frieda is different from Socrates who can be imperfect as Socrates, as we shall see, and who therefore is not only an individual. Frieda as Frieda never is identical with a cow or a cow schema. On the other hand, the schema a cow as such never can be bad either. Only Frieda can be bad in her possession of the schema. Hence, insofar as individuals are imperfect they can be so only in terms of the definition of their schemata and never as such. "Their" imperfection, by necessity, seems to impinge, through the looseness of our empirical language, on the schemata within them. Yet, it is precisely the schemata which serve as norm for the imperfection. When, for example, we say, "Frieda is a bad cow", we do mean Frieda although Frieda as individual is not a cow, but only Frieda's schema is. But Frieda's schema can never be "a bad cow", for, being the structural counterpart of the concept "cow", it must always be perfect as "a cow". Thus what is bad must be, it seems, Frieda, the individual. Yet, as we have seen, Frieda the individual cannot be imperfect as such and never is a cow. Thus Frieda cannot be "a bad cow". But neither can Frieda the individual be bad in terms of her complete description, for this description is Frieda as Frieda is, in the medium of language. There can be as little "a bad Frieda" as there can be "a bad cow" if a cow is a cow for being congruent with the schema "cow".

We thus arrive at a paradox, and it is this paradox which gives rise to value terms. Value terms arise out of the transposition of individual and schema, that is, out of the judgment about individuals in terms of their definitions or their schemata. They arise out of the process of abstraction and classification, and the impossibility in the empirical world to separate thing and schema. Individuals are insolubly connected, but not identical with, their schemata. Yet, language insists on the identification. We always mean "x is a C", we never mean, "The schema of x is a C". If we did, predication would be identification. Predication is, precisely, the combination of thing and schema without identifying the two. When we say "x is a C" we do mean x as well as the schema of x; and this prevents identification of subject and "predicate". For when "a C" is regarded as predicate it is not regarded as a schema of x. Rather, it is regarded as an attribute, or perhaps a norm, of x. Actually, however, all that "a C" is in "x is a C" is being a schema of x. Thus, predication contains a logical confusion, though a necessary and legitimate one, which arises out of the interwovenness of thought and thing.

Let us now go a step further and ask what is the difference between "Frieda is white" and "Frieda is a white cow". In the first case, what is white is the individual Frieda, a continuum in space and time, hence its whiteness also has the property of such a continuum—this white that covers Frieda. But in "Frieda is a white cow" "white" applies to the cowschema of Frieda; and this is a thought construction. Hence "white" here is itself schematic, it is one among the properties had in common by all white cows, indeed, all white things—an instance of whiteness; and it is not the white that covers Frieda. The white of a white cow can be seen as little as can a white cow itself. Only Frieda can be seen in her white skin.

It might be said that the sentence ought to be correctly "Frieda is white and a cow". But even this is invalid. For here white is an actual property of Frieda while a cow is not an actual but merely a fictitious set of properties within

her, namely that which all cows have in common. Frieda's properties are Frieda's, not those in common with all cows. At most, we may say there is a set of properties in Frieda which approaches, in a Friedan way, the common cow schema. Strictly speaking, while white is a property of Frieda, the elements of the cow schema in Frieda are, as such, not properties but predicates, that is, names of properties. An individual cannot have predicates but only properties; and a particular, a schema, cannot have properties but only predicates. Less strictly speaking, we may, for the sake of simplicity, identify the properties of the common cow schema in Frieda with the predicates of that schema. In this case, the sentence: "Frieda is white and a cow" may be regarded as logically correct; as it also may in the case where "white" is regarded as an instance of whiteness, as unreal as "a cow". But then we run into difficulty concerning the meaning of "is".

II

Let us now advance to the concept "man". Let us consider the following statements:

- (1) This is Socrates
- (2) Socrates is Socrates
- (3) This is a man
- (4) Socrates is a man
- (1) This is Socrates. This means that a certain being, beheld by the senses, is Socrates. What is meant is not that this or that part of the being in question is Socrates, but that all of it is; this being with all its properties. It is difficult to render all these properties as completely in the medium of language as they exist in the being itself. If it were possible there would be no difference between the being and the talking about it and we would still be in the magic state. In our present state of intellectual evolution we distinguish between the being and its name, and between the properties of

the being and their names, the predicates. It is through this distinction that logic enters. If the thing and its name, and its properties and their names, were one and the same, there would be no need for logic. Logic and life would be one and the same —as is indeed the case in primitive societies. Life there proceeds in the pattern of a logical system and the individual is an element in the system. In a primitive language, "This" and "Socrates" would not be separated. The "statement" would merely be a gesture and an utterance: "Socrates" or "This Socrates" as Malinowski's famous "Molubabeba". The statement "This is Socrates" shows that there exists a separation between the realm of things and that of names. Hence the statement is subject to logical analysis.<sup>8</sup>

In logical terms, "Socrates" is the proper name of the being in question; and the being, this, is what the proper name denotes. The attributes of Socrates, "wise", "courageous", "pug-nosed", "married to Xanthippe" etc., are what the proper name connotes. But, as we have seen, the conjunction of these properties cannot be the intensional counterpart to Socrates, for no enumeration of properties can cover the continuum that is the individual. This can only be done by what we called "depiction"; and depiction is more than enumeration. It must contain the continuous language elements that make the intension isomorphous with the extension. I can thus, if I am skillful enough, conjure up a faithful image of the individual in question. Such an image would be a word image and Plato has both given us such an image of Socrates and told us how to do it.

But when I say "This is Socrates" I cannot point at Plato's word image of his master. Such a word image is not concrete enough to be pointed at. I could point at a volume of Plato

<sup>8</sup> In some languages, such as Russian, this separation still does not exist. The verb "to be" is not used in the present.

<sup>&</sup>lt;sup>9</sup> One such element is metaphor. For details see the author's *The Structure of Value*, pp. 266 f., and "The Logic of Value", *Review of Metaphysics*, XIV (March, 1961).

and say: "Here you find Socrates", but I would not point at the volume and say: "This is Socrates". I could, however, point at a bust or a picture of Socrates, a continuum which represents him, and say: "This is Socrates". Hence, what I mean by "Socrates" in the statement "This is Socrates" is Socrates as a continuum seen or felt by me, with all the properties I discern. Hence, when I say "This is Socrates" I do not mean a label, I mean a likeness. Of course, I could also point at the label under the bust or picture, but then I would have to say "This is 'Socrates'" rather than "This is Socrates", for then I would mean the label 'Socrates' rather than the likeness of Socrates. In the latter case, "Socrates" has the denotation "this" which includes the pointing and the likeness pointed at, and the connotation of all the predicates which completely describe, or depict, this likeness. The intension, then, of "Socrates" in "This is Socrates" is a depiction.

## (2) Socrates is Socrates

If both terms "Socrates" in this statement are used either extensionally or intensionally, then the statement is a tautology. But if of the two terms "Socrates" one is used in a different sense than the other, the first extensionally and the second intensionally, or viceversa — then the statement is no tautology. In the first case, if both terms "Socrates" are used extensionally, we mean to say that the individual called "Socrates" is the individual called "Socrates". If we use both intensionally, we mean to say that the individual having the Socratic properties is the individual having the Socratic properties. In the second case, if we use one term extensionally and the other intensionally, or viceversa, we mean to say that either the individual called "Socrates" has all the Socratic properties; or that what has all the Socratic properties is the individual called Socrates.

There is a third possibility. The individual may point at himself and say: "Socrates is Socrates". This is equivalent

to pointing at himself and saying "This is Socrates" or, with or without pointing, saying "I am Socrates". In this case, "Socrates" is used intensionally with all the properties discerned by the person as his own. A variant of this use is "That's me", pointing at himself. Here "me" is the same depictive intension as the person's proper name. As I can meaningfully say: "That's me" I can also meaningfully say: "I am not myself", meaning that the actuality of myself is imperfect in terms of my definition of "myself". Equally, somebody could meaningfully say "Socrates is not himself" or "Socrates is not Socrates" if Socrates does not live up to his own definition of himself. Socrates himself insisted in the Apology on being himself and on asserting that he would not have been himself if he had not done what he had done. namely at any moment of his life lived up to the definition of his self. There is thus possible an imperfect fit between an individual's definition of himself and his actuality. Individuals where this is possible are called persons or men, and Frieda is not among them. A human individual thus is more than a mere individual.

# (3) This is a man.

Here we have a very peculiar statement. Obviously, if I cannot meet a man, as Russell rightly held, I cannot point at one. Hence, the statement must be either nonsensical or false. I can only point at Socrates; and the correct words accompanying this gesture can only be "This is Socrates". Indeed, if, as Russell says, it is contradictory to mean I met Jones when I say I met a man, if it may be equally contradictory to mean I met a man when I say I met Socrates. I cannot meet a man; and hence I cannot say "This is a man"; for the man-schema in Socrates is not pointable-at; it is a logical construction. In pointing at Socrates I cannot be pointing at some of his properties, but only at all of them together; and

<sup>10</sup> Introduction to Mathematical Philosophy, London, 1938, pp. 167 f.

none of them is part of the man-schema. The latter is an abstracted set of those predicates common to all men; and these are not Socrates' but those of the class-concept "man". They only exist in men's, and actually in logicians', minds. Thus, to say: "This is a man" is logically invalid and empirically false. It would not be entirely false to say, pointing at Socrates: "This is a skeleton". For whereas the skeleton is indeed hidden within Socrates' frame, the common predicates of man are not. Even though all men have noses, Socrates' nose is his own and not that of man. The nose of man is as much an abstraction as is man. Man has no nose; the concept "man" has among its content the concept "nose". Nor does Socrates have a nose; he has only his own nose; and even to say "Socrates is pug-nosed" is false. For Socrates has his very own pugged nose; and insofar as other people have pugged noses, the latter are constructions of thought and not individual noses.

## (4) Socrates is a man

If Socrates is the person that has all the Socratic properties, the statement "Socrates is a man" is as false as is the statement "This is a man". If it is true that the proper name "Socrates" refers to Socrates, the whole of Socrates and nothing but Socrates, then Socrates is vastly more than a man in the sense of the definition of "man", e.g., a rational animal etc. He is all the features and characteristics that make up Socrates, and among which are also rationality and animality—but not man's but his own.

A proposition whose subject is Socrates is indeed, as the ancients held, a universal proposition. But the universality is intensional, not extensional. It resides in the totality of the individual features connoted by the proper name. And if this is so, then the proposition "Socrates is a man" is false. Socrates is more than a man — he is Socrates. I we say, not quite correctly, that some of Socrates is "a man", and "a man" is part of Socrates —even though strictly speak-

ing this is false— then far from Socrates being a member of the class defined by "man" it seems on the contrary, "a man" schema is part of the class defined by "Socrates" ---namely of the totality of those features which are connoted by the name "Socrates". In this case, the proposition "Socrates is a man" is as false as is any proposition, which is true as a particular but false as a universal; that is, whose predicate is correctly referred to a particular subject but incorrectly referred to the corresponding universal subject. The proposition "Some horses are mares" is a true proposition because some horses are mares, whereas the corresponding universal proposition "All horses are mares" is false for the reason that some horses are not mares. The proposition "Socrates is a man", if it means "All of Socrates is a man" is false, and if it means "Some of Socrates is a man" it is true only if we abstract Socrates into a set of schemata of abstract properties among which is the schema "man". Generally, the proposition "Socrates is a man" means all of Socrates and subsumes all of him under the class of men. Hence it is false.

#### Ш

This is a most awkward result. In order to clarify the matter let us examine more in detail what the name "Socrates" and what the name "man" refer to.

It is, I think, beyond doubt that the proper name "Socrates" refers to all of Socrates, and not to some section of his properties. It refers to the totality known and observed as Socrates. The general name "man", on the other hand, refers to the extension of "man", that is, we remember, the totality of all man-schemata. Since these schemata are all exactly alike, superimposed one on another they are only one single schema. The extension, in this view, is then never a collection of actual things but only of schemata of things. Extension, we said, is the instantial counterpart to the intension of the concept. The intension, on the other hand, is the schema trans-

lated into the medium of language. The process of abstraction is the capacity of sensing in each thing its schematic structure and of translating this structure into language. The extension of the concept, that is, that which in reality corresponds to the intension of the concept, can never be, then, the individual as a whole (which is the extension of the proper name) but at most the set of properties within the individual which corresponds to the set of attributes of the intension, the schema. The denotation of "man" is "a man", and "a man" is the schema within any individual person which corresponds to the definition of "man".<sup>11</sup>

The question then is, what is the class of men. Is it legitimate to extend the extension of "man", that is, the schema. to the whole of the persons in question, which is denoted by proper names, and say, as some logicians do, that the class of men is the class of Socrates and of Plato and of Aristotle? Obviously not. We can even read Russell this way. "Socrates is a man, Plato is a man, Aristotle is a man, but we cannot infer that 'a man' means the same as 'Socrates' means and also the same as 'Plato' means and also the same as 'Aristotle' means, since these three names have different mean. ings". 12 On the other hand, we cannot say that the class of men is the class of the schemata, for there is, strictly speaking no class of schemata for all schemata are one. And even if they would not be regarded as one but as different one from the other, alike only in the rule of their construction, as the schemata of the circle which are all alike in their construction though different in their size (we might say that though all men are rational animals, the extent of their rationality and perhaps even their animality differs), we do not mean when we speak of the class of men the class of certain aspects within men, but the aggregate or totality of men such as Socrates and Plato and Aristotle. But how the referents of these proper names can be made the referents

<sup>11</sup> For details see The Structure of Value, pp. 196 ff., 221 ff., 351.

<sup>12</sup> Bertrand Russell, Introduction to Mathematical Philosophy, p. 173.

of the general name "man", that precisely is our question.

Our result so far is that the proper name "Socrates" refers to the individual and the general name "man" refers to the schema a man and that the two cannot be significantly connected. The proper name "Socrates", which is the subject of the proposition "Socrates is a man" refers to the individual Socrates; the general name, "man", which is the predicate of the proposition, refers to the set of common properties of all men, or the schema a man. The proposition as a whole says that the total individual, Socrates, "is" a man. Our problem then comes down to asking what does "is" mean.

It can mean three things. It can either mean that the total individual Socrates, is no more than "a man", that is, a schema. In that case, of course, it would be false that "Socrates" refers to the total individual which we have described. Rather, it refers to only that aspect, that minute part of it, which represents the minimum condition of "man", that is, to that which Socrates has in common with all men. In this case, there is no reason why this aspect should have the proper name "Socrates". Secondly, the subject may mean Socrates as the person he is. In this case, it is false that "man" refers to the common denominator of all men, namely to the schema of man in each individual. Rather, it refers to the one man, Socrates. Thirdly, the proposition may mean that Socrates, the total individual "is" a man in the sense defined, namely, a rational animal. In this case it is true that "Socrates" refers to the total individual and "man" to the schema. But then the proposition as a whole is false, for Socrates, the total individual, "is" not the schema. He contains that schema, and it may be true that some of Socrates is that schema, but he, Socrates, is immeasurably more than that schema.

Thus either our analyses of the intensions and extensions of "Socrates" and "man" are false or else the proposition "Socrates is a man" is false. We maintain that our analyses were correct: the proper name "Socrates", if it means any-

thing, means the total set of properties of the individual Socrates; and the general name "man", if it means anything, means the set of common properties of all men, the schema "a man" in every individual that belongs to the set of men. On the other hand, it is absurd to say that "Socrates is a man" is false for, obviously, Socrates is a man. Thus we have a set of two contradictory propositions, "Socrates is a man" and "Socrates is not a man" both of which are true and both are false, from different points of view. Such a set of propositions was called by Kant an antinomy.

The antinomy in question arises necessarily from the structure of our minds. We must, by the very constitution of our minds, connect in propositions the names of actual individuals with abstract concepts. The solution of the antinomy must be found in a suitable analysis which shows that one of the terms of the proposition is used ambiguously. Since we have given the exact meaning of "Socrates" and of "man" the only term that is left for analysis is "is". The solution of the antinomy must show a certain meaning of "is" which enables it to connect the different terms of subject and predicate in such a way that the propositions in question are either shown not to be contradictory or to be contradictory in such a way that if the one is true the other is false. Before proceeding to the solution let us first state the antinomy in clear terms and understand what it means.

There are several alternative ways in which we may state it. We may state its thesis and antithesis as follows:

Thesis Socrates is not a man Antithesis Socrates is a man,

and show in which way both thesis and antithesis are true; the thesis being true because Socrates is more than a man and the antithesis being true because Socrates is, at least, a man. Or we may state it as follows:

Thesis "Socrates is a man" is false because Socrates

is an individual and only part of this individuality is that set of properties which is the schema a man.

Antithesis "Socrates is a man" is true, because Socrates is a member of the class of men.

or, thirdly, we may formulate it thus:

Thesis If it is true that Socrates is Socrates then it is false that Socrates is a man.

Antithesis If it is true that Socrates is Socrates then it is true that Socrates is a man.

Let us now see what the antinomy means.

Formally it means that the individual does not lose its individuality by being subsumed under a concept or becoming a member of a class. Therefore, the name of the individual class member is not the name of the class. The name of the class is "man" whereas the name of the individual class member is "Socrates', "Plato", etc. These latter are the proper names of the individuals, of this man and that man, but not as men but as individuals. The proper name of "a man" is "man". The subject "is" a man only insofar as he has the common properties of all men; but each individual has these in a different way —if indeed it can "have" them at all. And, strictly speaking, we have seen it cannot.

The antinomy arises out of the structure of our mind. As already Spinoza observed, we can never say anything significantly of an individual thing unless we either relate it to some other individual thing or predicate of it something abstract. In the latter case, the "is" is not an "is" of identity unless what we mean by "Socrates" is also something abstract. The two aspects of abstraction, generalization and isolation, always belong together; no thing remains logically (though, of course it does ontologically) what it was, once it has taken part in a process of abstraction — once, that is, it has been converted from individual to particular. Generali-

zation splits off something from the thing and transfers it, so to speak, upon the concept, only to bring it back to the thing when the thing is called a so-and-so. But the splitting off takes place only in thought, not in the actual thing. The actual thing remains what it is and subject to its proper name. When the abstractly split off is restored to it by means of "a", the thing remains ontologically individual and the class membership is added to its individuality. The class then is all those individuals from which it was possible to split off, in thought, the same aspect of schema as from any other "such" thing in order to form the thing concept. In this case, the "is" of predication regards the thing itself as a nucleus of concreteness from which infinitely many schemata were split off to form concepts and to be restored to it by "a"; but what is "restored" by "a" is nothing concrete any more, it is schemata. It is therefore more correct to dispense with ontological assumptions and regard the thing itself as a bundle of schemata. It is no more than that in extensional logic. The concrete thing itself disappears. As compensation, the schema is being endowed with concreteness; and thus it was believed in all seriousness that a man could be met in the street and that Socrates was a man. Logic developed general names and forgot to deal properly with proper names.

Logic thus dealt with the antinomy by equating the ontological status of Socrates and of a man. On the one hand, it adequated the status of a man to that of Socrates, reifying or personifying it; on the other hand, it adequated the status of Socrates to that of a man, depersonalizing or de-individualizing Socrates, regarding him not as one but rather as the complex of all those aspects which one generalization or another had split off from him, an aggregate of particulars. In this case, the proper name "Socrates" refers not to the concrete indivisible individual, but to the aggregate of predicates which in different ways have been generalized; and Socrates gets his individuality only by restoring to him, through predicative propositions, all the adjectives which

had been split off from him. In this case, however, a special act of the understanding is necessary, the leap from the aggregate of many descriptions to the unity of acquaintance—and this is a leap right out of extensional logic.

In this kind of logic, "Socrates" denotes a member of classes, and is the value of a propositional function. Only conjunction or product of classes could restitute the individual —and this process is as hopeless as is that of putting together Humpty Dumpty. As a consequence, the name "Socrates" does not connote anything; and the proper name "Socrates", as a significant concept, disappears from logic. It is without connotation, as Mill had it, or a simple entity, as the early Russell held. If, on the other hand, "Socrates" would mean anything it would have a connotation just like a general name, and the connotation would be whatever is known of Socrates. In this way, the properties of Socrates would appear not as intensions of a variety of classes of which Socrates is a member, but as the set of all those properties which were originally his.

Thus we have a fundamental schism of views. In the one view, names either name non-descript entities or abstractions. The constituent predicates of these abstractions are concepts signifying classes, through which the individual which as such means nothing—gains shape gradually by being subsumed under these concepts and made a member of these classes. As a result of this round-about process, the name gradually fills with meaning and at the end the individual appears, as a ghost rather than a phenix, out of ashes — which latter are the residues of his own abstractive sublimation. But there is no residue in the name "Socrates" which is outside the subject of propositions such as "Socrates is a man". Socrates is as unreal as is a man. Such propositions, when regarded as true, may be supposed, in their totality, to approach the concept "Socrates", or even Socrates himself; even though it is understood that there is

<sup>&</sup>lt;sup>13</sup> For the Russell of *Human Knowledge* the matter is different and in some respects similar to the way we see it.

an unbridgeable gap between even the richest concept and the individual. In this case, though Socrates may be recognized as existing in reality, his name disappears in logic. No name used in logic names the fullness of his reality.

In the second view, Socrates is regarded as the individual of concrete experience, which, as such, has the properties it actually has. When we speak of Socrates we do mean him in his fullness and not the non-descript entity referred to by extensional "proper names", or the individual as regained from the precipitation of abstractions and generalizations. But in this case, again, the proposition "Socrates is a man" is bothersome; only that what bothers us now is not the subject but the predicate. In the first view, "Socrates" in "Socrates is a man" was a concept no more significant than "a man". Socrates was either non-descript or a ghost. In the second view, "Socrates" names Socrates in his Socratic fullness. But then it is false that he is a man. For a man does not exist as does Socrates. Neither can we say that he has the attributes of a man for, as we have seen, he has only his own attributes. And if, less strictly, we stake out among these those of man (and other classes), then, again, Socrates must be regarded as a complexity of properties, part of which corresponds to the set that defines man and other parts to other sets. In this case, we may regard "Socrates" itself as a class concept, though not the unit class of extensional logic. Rather, it is a concept with both denotation and connotation. Its denotation is Socrates and its connotation is all the predicates forming the intension corresponding to the actual complexity Socrates. However, since Socrates is a continuum in space and time, and the intension must be isomorphic with it, the intension must itself be a continuum. Hence it cannot consist of denumerable sets of class predicates. Thus, the second view is as difficult to sustain as the first.

The only way out would be a logic that is capable of designing an intension as a continuum, with a non-denumerable set of predicates. Such a logic would have to con-

struct, by the side of the intension determining the schema which accounts for the particular, an intension as continuum, which determines univocally the individual as being in space and time; the univocal intensional counterpart to the individual.

This logic neither exists nor has it ever existed. There are, however, attempts at it. We shall discuss one of them which seems to us to indicate the direction in which the solution of the problem may be found.

#### IV

Both the particular and the singular appear as concept and as referent. The concepts of both particular and singular are thought structures isomorphic with their referents, the schema and the individual, respectively. If the schema is regarded as an aspect or part within the individual —which from one point of view it may—the conceptual counterpart of the schema, the particular intension, may be assumed to be an aspect or part, —in the same sense—of the conceptual counterpart of the individual, the singular intension. Thus, if we succeed in logically defining the relation of individual to its referent we may at the same time be able to define logically the relation of particular to singular intension, and of schema to individual.

The individual exists in space and time. The concept of it is in the mind. The problem to be solved then is: How can the concept of an individual determine logically the existence of its referent?

Attempts at solving this problem, from St. Anselm's formula to the "existential" quantifier, have not been successful. St. Anselm's formula fails logically to account for the role of maius in it, 14 the "existential" quantifier constructs a logical "existence" but no existence in space and

<sup>&</sup>lt;sup>14</sup> See the author's "Prolegomena to a Meta-Anselmian Axiomatic," Review of Metaphysics, Vol., XIV, No. 4, June 1961, pp. 637-675, and The Structure of Value, p. 116.

time. That there is a value of a propositional function and that Socrates exists are two entirely different things. Socrates can never be the value of a propositional function, only "Socrates" can. An "ontology" therefore, by the use of bound variables and after amputation of both names and meanings from logic, is not a commitment to existence but only to "existence"; and it is about as ontological as a eunuch's commitment to love is erotic. The real thing is missing; the reference to the spatio-temporal existent. The individual intension must, somehow, contain this reference. Extension must become a necessary part of intension; existence a necessary part of essence, reference a necessary part of sense. This means that spatio-temporal existence must become a logical construction.

This task can only succeed if the two dimensions, that of thought and that of existence, can be shown to be continuous, that is, part of one and the same overarching structure within which they form a continuum. There must, thus, be a spectrum of meaning which begins with thought and continues without interruption to the referent of thought.

In the following an attempt at such logical construction of spatio-temporal existence will be discussed. The essence of it is a special structure of intension which pertains to existence and existence only.

Let us start with some preliminary remarks. Frege and others have shown that sense and reference, whether of concepts or of propositions, are not mutually exclusive. Sometimes sense may be reference and reference sense. In what Frege called "ungerade Rede", indirect speech, sense e.g. of a person's remarks, beliefs, etc., becomes reference. In this case, the reference of a subordinate clause, as in "I believe that...", is a thought, a sense, not a truth value (or

<sup>15</sup> For Quine, "exists" has no spatio-temporal connotation. "On What There Is", From a Logical Point of View, Harvard University Press, Cambridge, Mass., 1953, p. 3. His essay is not so much on what there is as on what there is not. That his "commitment" is to "existence" rather than to existence is recognized by Quine, op. cit., pp. 15 f.

any other kind of reference). In "Napoleon believed England was beaten" the subordinate clause "England was beaten" refers to the thought of England and of its being beaten but not to England and its being beaten. The sentence therefore may also be written "Napoleon believed 'England is beaten'", where it is clear that the reference of the subordinate clause is the thought "England is beaten" rather than the fact, the truth value, or the like. Meaning, thus, can be reference, and reference meaning.

However, we need the special case where spatio-temporal existence itself is part of meaning. This is the case in ostensive expressions, performatives and the like, were spatiotemporal actions are essential parts of meaning. When I point at something saying: "That's what I mean", then what is spatio-temporally observed becomes part of the meaning, and the meaning is incomplete unless the action and its consequences are included in it. Philosophers from Wollaston to Buber, Cassirer and Austin have dealt with this subject giving it moral, theological, 15a epistemological, historical 15b and other interpretations. But no strictly logical interpretation has been put forth by these philosophers, in the sense that a notion of meaning was constructed which includes spatiotemporal existence. There are, however, some attempts in this direction, particulary noteworthy those of Bertrand Russell<sup>16</sup> and of David Rynin.<sup>17</sup> Since the former is well known and the latter all but unknown I shall concentrate on the latter.

Rynin discusses meanings which are realized only in existence and whose realization in existence is a necessary condition for grasping them. There are cases where we grasp

<sup>15</sup>a Buber speaks of "primary words" which "do not describe something that might exist independently of them, but being spoken they bring about existence". I and Thou, T. and T. Clark, Edinburgh, 1950, p. 3. Emphasis added.

<sup>15</sup>b Connecting it with the original identity of word and thing.

<sup>&</sup>lt;sup>16</sup> Human Knowledge: Its Scope and Limits, Part II, Chs. III, IV, Part IV, Ch. VIII.

<sup>&</sup>lt;sup>17</sup> "On Deriving Essence from Existence", *Inquiry*, Vol. 6, No. 2 (Summer 1963), pp. 141-156.

a concept only after becoming acquainted with some existential manifestation of it and where the essence, in so far as we grasp it, is found not merely involving but dependent on existence. In these cases the idea or concept becomes clear to us only when being realized. The artistic process of creation of an idea in reality belongs to this kind of meanings. Only when the artist finds the idea realized in the work does he come to a full understanding of what it was he was after —what the essence was that he meant to bring into existence. Also non-artistic persons often seek to realize some vague idea and for the first time recognize what they meant to do only upon succeeding in doing it: "That is what I meant all along!" The meaning within us is not fully comprehended until we confront the essence upon suddenly finding it in existence. Some meanings are fully grasped by us only when we find them realized; the very condition of a term's meaning being understood by us is its having denotation.

This is true not merely for purely denotative terms but also for terms that have sense or meaning proper, connotation. Someone who has never been in love does not really know what love is unless he has experienced it. Rynin mentions other examples, such as mountain climbing; but actually he has hit upon a general feature of meaning. No concept can become clear in its full meaning unless it is experienced. The way to get clear about anything is to experience it. This idea is at the basis of pragmatism but there logic is situationalized, or existentialized, whereas we aim at logicizing existence. 18 There is in every divined idea the urge for clarity. Leibniz called this inherent dynamic of meaning the exigentia essentiae and the praetensio ad existendum; Kant made it the basis of the hierarchy of precision in his logic, the process from description through exposition to definition;19 Rynin applies it to the ontological argument; and so did the

 <sup>18</sup> Cf. Bertrand Russell, "Dewey's New Logic", in Paul A. Schilpp, The Philosophy of John Dewey, Evanston and Chicago, 1939, p. 156.
 19 The Structure of Value, pp. 79 ff. "The Analytic and the Synthetic as Categories of Inquiry", Perspective of Philosophy, Ohio State University, 1953, pp. 55-78.

present author, discussing Anselm's search for God as a passion to find the known unknown.<sup>20</sup> The passion of discovery is aroused by the expectation of finding treasures in a realm which is known to be there but whose nature is unknown. "Thus was the passion of Columbus to discover the seaway to India, of Kepler to unravel the secrets of Mars, of Schliemann to uncover Troy. This passion, of uncovering the known unknown—like undressing a woman— knows all and yet nothing. It knows the that but no the what; it knows existence but does not know its properties". This means, however, that it knows an essence which can receive sense only in existence; for an existence without properties is nothing but an essence, and an incipient one, a hunch which can be fulfilled only in existence.21 The creative passion that leads the human spirit from essence to existence is a passion for complete knowledge -from hunch to achievement, from imagination to experience, from hypothesis to experiment, from concept to example — in a word, from the general to the individual.

What this means is that essence cannot be separated from existence. In every case, essence receives its fullness only in existence. We must, by the nature of our rationality, go on from an idea to its realization, in the double sense of this word. The urge of knowledge is fulfilled in the degree that we succeed in knowing both more and better, intelligere maius et melius. Extensional fullness, in the case of the individual, coincides with intensional fullness. The most real object, therefore, must be the richest in meaning — and this is the core of the ontological argument. Theoretically, when we know an object than which nothing better nor greater can be conceived we know whatever there is to be known. In this case, all our meaning becomes existence. The object than which nothing greater can be conceived is the theoretical end

<sup>20 &</sup>quot;Prolegomena to a Meta-Anselmian Axiomatic", The Review of Metaphysics, Vol. XIV, No. 4, June 1961, pp. 638-639.

21 Kierkegaard's The Concept of Dread is a profound variation on this

theme.

product of our thinking — and it is coincident with creating. Thinking, followed up to its ultimate articulation, is necessarily creative. In the degree that we add properties to essence we make existents. Anselm only stated ontologically what is obvious epistemologically, the necessary realization of essence in existence by articulating and differentiating thought.

For this reason it is true, as some philosophers have held, that we do not know what we merely think. Unless there is an action in space-time added to a thought the thought itself remains embryonic. In the action, space and time are summoned to the articulation of thought. Thus, if a philosopher would not write he would not be able to develop his thought. By the presentation of the thought in space and time, the ordering principles of space and time are brought to the ordering of the thought. The thought thus becomes an object in the space-time world and as such, and only as such, both developed and capable of exerting influence.

Logic has taken little cognizance of this fact. Its most extensive treatment may be said to be Kant's transcendental logic, both his first and third critique (though the connection of the two is not always clearly realized). In our time, we have Husserl's relentless investigations into the constitution of reality and the nature of evidence. Husserl's Evidenz arises from an act of insight in which the presence of the object is ascertained as the result of the cumulative fulfillment of all anticipatory intentions. There is, in Husserl, an essential connection between the truth and the experience of truth. Evidence is the experience of the agreement between a meaning and what is meant, between the actual meaning of the statement and the self-given fact. Experience, in other words, is a factor in knowing. An evident judgment is defined as the consciousness of originary givenness. "Evidence is not an accessory feeling that is attached to certain judgments accidentally or according to natural law; it is not a psychical character at all... It is nothing other than the experience of truth".<sup>22</sup> There is a hierachy within knowledge, a profundization from simple hunch to complete knowledge which latter is the experience of the hunch fulfilled, of the "cumulative fulfillment of all anticipatory intentions". In this sense we all proceed as does the artist; insofar as we immerse ourselves in our knowledge the object collaborates with us, and we with it, in constituting our meaning "'Object itself' is nothing but the idea of the object's completely fulfilled sense, of its completely fulfilled meaning" ("'Sachverhalt selbst ist nichts anderes als die Idee des vollkommen erfüllten Sachverhaltsmeinung").<sup>23</sup> Cognition is an action whose aim, in successive stages of grasping the object, is both fulfillment of clarification and fulfillment of cognitive striving.

A logic that does not treat of these states of meaning cannot be said to be adequate to the process of thinking. What is needed is a comprehensive logical notion of meaning which includes all the stages of meaning, from divining to the full experience of meaning in existence.

V

There is such an overarching notion. It is that of Value. Value is meaning in its various forms of fulfillment.<sup>24</sup>

The antinomy of which we spoke, therefore, can be resolved by a logic of value, an axio-logic.<sup>25</sup> The transition from idea

<sup>23</sup> Edmund Husserl, *Erfahrung und Urteil*, Claassen und Goverts, Hamburg, 1948, Paragraphs 68, 69. See also Paragraphs 21-26, 48-56.

<sup>24</sup> For details see the author's "Formal Axiology and the Measurement of Value", *Journal for Value Inquiry*, Vol., I, No. 1, Spring 1967, pp. 38-46.

<sup>25</sup> It is interesting to note that Husserl's *Evidenz* was based on Brentano

<sup>&</sup>lt;sup>22</sup> Edmund Husserl, Logische Untersuchungen, Max Niemeyer Verlag, Halle, 1928, Vol. I, pp. 189 f.

<sup>23</sup> It is interesting to note that Husserl's Evidenz was based on Brentano for whom this kind of knowledge was the basis of ethical knowledge. G. E. Moore found Brentano's work, The Origin of the Knowledge of Right and Wrong, "a far better discussion of the most fundamental principles of ethics than any other with which I am acquainted", and Brentano's "opinion far more closely resembling my own than those of any other ethical writer". (G. E. Moore, International Journal of Ethics, Vol. XIV, 1904 pp. 115-123: Principia Ethica, Cambridge, 1903, p. xi). On Moore's value theory is based

to thing, from essence to existence, is a value process. In formal axiology, the transition is the one from systemic value to intrinsic value. To the stages of meaning corresponds the hierarchy of meaning structures, which is one of value dimensions.26

What is created in the process of transition from essence to existence is *value*; the process is one of value creation. The existent appears as the value created, the essence, the original meaning is both the more and more differentiated value material and the guideline for this differentiation both dynamis and telos, in terms of Aristotle. The original meaning is articulated more and more in both action and thought until what was divined becomes a work realized. As such it represents the original meaning in its fullness and completion. The telic role of the original meaning in this process is that of a guideline, a vision that is never left out of sight. We find good examples of this process in accounts of musical, mathematical and logical creation. The original meaning, called idea, conception, intuition, inspiration and the like, is a "foreshortened meaning" of the whole, a perception "at a glance of the reasoning as a whole", 28 "the important moment",29 where "the impulse toward a certain goal is clearly envisaged" (Sessions) and the whole work is contained in a flash of "blinding clarity, so that it only remained to write down what appeared as in a revelation".30 This moment follows after a laborious struggle for

formal axiology. (The Structure of Value pp. 101 ff). The philosophical root of the whole train of thought is, of course, Plato's discussion of the good in the Republic. where orders of clarity are joined with the notion of goodness (especially in the three similes of the Sun, the Line, and the Cave). See I. M. Crombie, An Examination of Plato's Doctrine, Routledge and Kegan Paul, London, 1962, Vol. I, pp. 105-131.

The Structure of Value, pp. 249 ff.
 Roger Sessions, "The Composer and His Message", in Brewster Chiselin,

The Creative Process, University of California Berkeley, 1952, pp. 36-40.

28 Henri Poincaré, "Mathematical Creation", Ghiselin, op. cit., pp. 22-31.

29 Bertrand Russell, in Eliot Dole Hutchinson, How to Think Creatively,

Abingdon-Cokesbury Press, New York, 1949, p. 112.

30 Bertrand Russell, "How I Write", The Basic Writings of Bertrand Russell, R. E. Egner and L. E. Denonn, eds., Simon and Schuster, New York, 1961, p. 64.

solution of a problem, for meaning of the meaningless. Without this struggle, the moment either does not come about or, if it does, is not recognized as such. With this struggle, the moment appears as the perfect solution of the problem. When this perfect realization is attained, there can be "no hesitation—rather a flash of recognition that this was exactly what [was] wanted". The final work "arises out of the original inspiration and is, so to speak, an extension of its logic" (Sessions). The process is in all cases an impersonal one, the person feels seized, possessed, "not writing but being written" (Franz Werfel), not thinking but thought, grasped by an "irresistible and titanic energy of expression" (Sessions). The person, in other words, is being taken over by the energy of the idea, the exigentia essentiae pressing toward existence, the praetensio ad existendum. The dynamic of which he is possessed is a logical one. The meaning itself presses toward its articulation and completion.

The question then imposes itself, what is the relation between the original and the final meaning of the work. Both are obviously meanings, the first a foreshortened meaning of the last, the last an expanded meaning of the first. The meaning as whole is a living process, adding and subtracting "useful combinations" (Poincaré), all in the light of the original and final idea. It is a self-creating organism. All this, however, is metaphorical. There is a precise logic of the process, demonstrated by Descartes and Kant, and elaborated by Cassirer, Whitehead, Nicolai Hartmann and others.<sup>31</sup> In short, it is a process from analytic implication (the preparatory search for solution) to axiomatic identification (the "inspiration") to synthetic construction.

There is thus a necessary logical process leading from essence to existence. It is a process of meaning, to ever richer intensional content which may lead to infinite contents—contents, that is, of infinite numbers of properties or numbers of infinite properties, properties of infinite mean-

<sup>31</sup> For details see The Structure of Value pp. 87-93, 217 ff.

ing.<sup>32</sup> The concrete individual may then be defined as the extension of an intension with infinite content, or of intensional cardinality A<sub>1</sub>.<sup>33</sup> It can be shown that the living nature of such an intension is a logical consequence of its continuum nature.<sup>34</sup> On the other hand, it has been shown that finiteness of properties means the opposite of life and termination of existence—death.35 The outstanding feature of a dead person is that nothing happens with him anymore, that he is no source any more of properties or features. All he is a memory, a thought. The concept of non-existence is a relapse into particularity — as the individual was, according to Schopenhauer, before his birth, in the glances of his progenitors.<sup>36</sup> He thus is an existence between two essences, anticipation and memory. There are other examples which illustrate the logical process from particularity to singularity, but what has been said may suffice to show that there is such a process, that it includes existence, and that it is one of valuation.

## VI

We are now ready to return to our original example. "Socrates is a man" combines terms of different dimensions. Logically, unless we find the connection between them, it is as incomprehensible as is "Virtue is red". The connection, we maintain, is axiological. Predication, as the copulation of a singular with a particular, cannot be understood by any theory of meaning, or rather of non-meaning, of present-day logic. The solution is not to annihilate meaning but to upgrade it into value. A predication is a valuation, a Sinnesberei-

33 Op. cit., pp. 331 f.

\*\*See the author's "Four Axiological Proofs of the Infinite value of Main", Kant-Studien, Band 55, Heft 4 (1964), pp. 428-438.

35 Dr. Adolf Dyroff, Über den Existentialbegriff, Herdersche Verlagshandlung, Freiburg i. Br., 1902, pp. 51 ff., 88.

36 Arthur Schopenhauer, "The Metaphysics of the Love of the Sexes", The World As Will and Idea, Bk. IV, Ch. XLIV.

<sup>32</sup> Op. cit., pp. 201 f., 220 ff., 266 f.

<sup>34</sup> See the author's "Four Axiological Proofs of the Infinite Value of Man",

cherung (sense enrichment) in terms of Husserl.<sup>37</sup> When I say, "Socrates is a philosopher" I value Socrates in a certain way as I do when I say "Socrates is Socrates". This becomes clear in such statements as "Shakespeare is a writer" or "Shakespeare is a good writer" as against "Shakespeare is Shakespeare"; or "My wife is a woman" or "My wife is a good woman" as against "My wife is my wife". The first two statements in each set assign to the subject only the range of extrinsic value, the second giving praise which, in the light of the intrinsic value these subjects represent, is almost offensive; and the last statement in each is no tautology; rather it assigns the intrinsic value due the subject. It is a valuation of the same kind as saying that something is really or truly what it is, as "He is a real man" or "Yours truly".

Just as in these expressions tautology breaks down, so in other expressions synonymy breaks down. Terms such as "father" and "son" are not synonymous with "male procreator" and "male sibling", as can be easily seen when substitute "male procreator" for "father" in the Lord's Prayer. and "male sibling" for "brother" in Cain's question "Am I my brother's keeper?" The reason is that words like "father", "brother" etc., contain the whole range of meaning, from systemic to intrinsic value, whereas words such as "male procreator", "male sibling" etc., only have systemic meaning. In the same way, the term "man" ranges over the whole spectrum of meaning, from the systemic meaning "a rational animal" or "a member of the human species" to the extrinsic and particular meaning "a member of humanity" to the intrinsic and individual meaning "He was a man, take him for all in all, I shall not look upon his like again", as Hamlet praised his father. As does the predicate "man" so does the subject of our proposition. "Socrates" may have the purely systemic meaning of the "proper name" of extensional logic; or it may have the extrinsic meaning of a bundle of properties;

<sup>&</sup>lt;sup>37</sup> Er/ahrung und Urteil, Pars. 50, 56. Cf. the Kantian hierarchy of meanings, Logik, Pars. 97-120 and note 19 above.

or the intrinsic meaning of the fullness of the individual. In "Socrates is a man", thus, both subject and predicate may range over the whole field of meaning; and they may freely adjust themselves to each other in whatever meaning is adequate.

A logic therefore that dispenses with meaning, and even one that supplants it by synonymy, is inadequate to account for human discourse. A logic created for mathematics becomes literally nonsensical when measured by the requirements of everyday language. It is neither linguistic nor semantic. A logic that is to account for linguistic use and significance must account both for singulars and particulars, and for their inter-relationship. This inter-relationship is an axiological one. It can be accounted for by a value logic, one which deals with the spectrum of meanings that corresponds to the reality of thought. Predications and other logical institutions then turn out to be valuations, and statements of fact become a certain kind of value statements<sup>38</sup>.

<sup>38</sup> The Structure of Value, pp. 215-228.

I. Este artículo discute algunos aspectos de lógica que han sido descuidados en la precipitación hacia la extensionalidad, así como algunas paradojas inadvertidas por la lógica extensional y que sólo se aclaran cuando se usa la lógica tanto extensional como intensionalmente (por 'extensión' e "intensión' se entiende aquí aspectos del concepto, no de la proposición). En particular, examina el viejo enigma de la relación entre singular y particular. ¿Qué significa lógicamente la proposición "Sócrates es un hombre"? "Sócrates" es un nombre propio, "hombre" es un sustantivo genérico. ¿De qué modo, si alguno hay, pueden combinarse ambos? De nuestra investigación resultará que "Sócrates" y "hombre" se refieren a dos dimensiones lógicas incompatibles y que sólo pueden combinarse en una proposición cuando se han hecho compatibles.

La separación entre cosa y nombre no es algo obvio. En los lenguajes primitivos la cosa y el nombre son idénticos; nombrar la cosa es actuar sobre ella. Cada cosa tiene su nombre propio y no existen sustantivos sino nombres propios o, más bien, cosas propias (o nombres de cosas o cosas nombradas). La abstracción separó la cosa y el nombre. La cosa se convirtió en una instancia, el nombre propio en un sustantivo genérico o concepto. El proceso de la cosa a la instancia fue un proceso de aislamiento: en la cosa se aisló una sección que sirvió como contraparte del concepto. A esta sección se le ha llamado "esquema". Al mismo tiempo, el proceso del nombre propio al concepto fue un proceso de generalización: el concepto llegó a representar los atributos que tenían en común todas las cosas "semejantes". Así, la abstracción es, por parte de la cosa, aislamiento o esquematización y, por parte del nombre propio, generalización. El esquema es lo que, en cada cosa individual, tiene las propiedades comunes expresadas en el concepto, es la cosa como instancia del concepto, como un particular. La totalidad de todos estos esquemas -que son exactamente iguales todos y, por ende, se conciben superpuestos el uno sobre el otro, constituyendo un esquema único- es la extensión del concepto. Esta extensión no es nunca las cosas existentes a las que parece referirse el concepto, sino sólo los esquemas en estas cosas. Extensión es el contraparte instancial, el patrón isomórfico de referencia de la intensión del concepto. La intensión, a su vez, es la definición del concepto, esto es, la translación del esquema al medio lingüístico. La intensión de un sustantivo genérico se refiere, en un sentido, a muchas instancias, en otro, a los atributos que todas estas instancias tienen en común, al esquema único.

- II. Consideremos los siguientes enunciados:
  - (1) Esto es Sócrates
  - (2) Sócrates es Sócrates
  - (3) Esto es un hombre
  - (4) Sócrates es un hombre
- (1) Esto es Sócrates. Quiere decir que cierto ente, observado por los sentidos, es Sócrates. No quiere decir que ésta o aquélla parte del ente en cuestión sea Sócrates, sino que todo él lo es: ese ente con todas sus propiedades.

En terminología lógica "Sócrates" es el nombre propio del ente en cuestión; y el ente, esto, es lo que denota el nombre propio. Los atributos de Sócrates son lo que connota el nombre propio. Pero la conjunción de estas propiedades no puede ser el contraparte intensional de Sócrates, pues ninguna enumeración de propiedades puede cubrir el continuo que es un individuo. Esto sólo puede hacerse por lo que llamamos "dibujo" (depiction); y dibujar es más que enumerar. Debe contener elementos lingüísticos continuos que hagan que la intensión sea isomorfa con la extensión.

- (2) Sócrates es Sócrates. Si los dos términos "Sócrates", en este enunciado, se usan ambos extensional o intensionalmente, el enunciado es una tautología. Pero si uno de los dos términos es usado con un sentido diferente que el otro —el primero extensionalmente y el segundo intensionalmente o viceversa— el enunciado no es una tautología.
- (3) Esto es un hombre. Si no puedo encontrar "un hombre", como sostenía acertadamente Russell, no puedo tampoco indicarlo. Por ende, el enunciado debe carecer de sentido o ser falso.
- (4) Sócrates es un hombre. Si Sócrates es la persona que tiene todas las propiedades socráticas, el enunciado "Sócrates es un hombre" es tan falso como el enunciado "esto es un hombre". Si es verdad que el nombre propio "Sócrates" se refiere a Sócrates, a todo Sócrates y a nada más que a Sócrates, entonces Sócrates es bastante más que un hombre en el sentido de la definición de "hombre", es decir, un animal racional, etc. En este caso la proposición "Sócrates es un hombre" es tan falsa como cualquier proposición que sea verdadera respecto de un particular pero falsa respecto de un universal; es decir, cualquier proposición cuyo predicado se refiera correctamente a un sujeto particular pero incorrectamente al sujeto universal correspondiente. Algo de Sócrates es un hombre, pero no todo Sócrates lo es.

III. El nombre propio "Sócrates" se refiere a la totalidad conocida y observada como Sócrates. El sustantivo genérico "hombre", por su parte, se refiere a la extensión de "hombre", esto es, a la totalidad de los esquemas de hombre.

El resultado alcanzado hasta ahora es que el nombre propio "Sócrates" se refiere al individuo y que el sustantivo genérico "hombre" se refiere al esquema "un hombre" y que ambos no pueden conectarse significativamente. El nombre propio "Sócrates", sujeto de la proposición "Sócrates es un hombre", se refiere al Sócrates individual; el sustantivo genérico "hombre", predicado de la proposición, se refiere al conjunto de propiedades comunes a todo hombre, o al esquema un hombre. La proposición considerada globalmente dice que el individuo total, Sócrates, "es" un hombre. El problema se reduce, entonces, a preguntar qué significa "es".

Puede significar tres cosas. Puede significar que el individuo total, Sócrates, no es más que un hombre, esto es, un esquema. En este caso sería falso, por supuesto, decir que "Sócrates" se refiere al individuo total. Antes bien, sólo se refiere a esa diminuta parte de él que representa la condición mínima de "hombre", es decir, a lo que Sócrates tiene en común con todos los hombres. En este caso no hay ninguna razón para que ese aspecto tenga el nombre propio de "Sócrates". En segundo lugar, el sujeto puede significar a Sócrates como la persona que es. En este caso es falso que "hombre" se refiera al común denominador de todos los hombres, a saber, al esquema de hombre en cada individuo. Antes bien, se refiere al hombre único, Sócrates. En tercer lugar, la proposición puede significar que "Sócrates" se refiere al individuo total y "hombre" al esquema. Pero entonces la proposición considerada globalmente es falsa, pues Sócrates, el individuo total, no "es" el esquema. Contiene ese esquema y puede ser verdad que algo de Sócrates sea ese esquema, pero él, Sócrates, es inconmensurablemente más que ese esquema. Por otra parte, es absurdo decir que "Sócrates es un hombre" sea falso, pues obviamente Sócrates es un hombre. Así, tenemos un conjunto de dos proposiciones contradictorias, "Sócrates es un hombre" y "Sócrates no es un hombre"; ambas son verdaderas y ambas falsas, desde diferentes puntos de vista. Un conjunto semejante de proposiciones se llama una antinomía.

La lógica se las ha entendido con las antinomías equiparando el status ontológico de Sócrates y el de hombre. Por un lado, adecuó el status de hombre al de Sócrates, reificándolo o personificándolo; por el otro, adecuó el status de Sócrates al de un hombre, despersonalizando o desindividualizando a Sócrates, considerándolo, no como una unidad, sino más bien como el complejo de todos los aspectos que una u otra generalización haya desgajado de él, considerándolo

como un agregado de particulares. Con todo, puesto que Sócrates es un continuo espacio-temporal y la intensión debe serle isomórfica, la intensión debe ser, ella misma, un continuo. Por ende, no puede consistir en conjuntos enumerables de predicados de clase. Así, el segundo punto de vista es tan difícil de sostener como el primero.

La única salida sería una lógica capaz de delinear una intensión como algo continuo, con un conjunto no enumerable de predicados. Una lógica tal tendría que idear, al lado de la intensión que determina el esquema, que da cuenta del particular, una intensión como un continuo, que determina univocamente el individuo como un ente espacio-temporal: sería el contraparte intensional univoco del individuo.

Esta lógica no existe ni ha existido nunca. Existen, sin embargo, intentos por lograrla. Discutiremos uno de ellos que nos parece indicar la dirección en la que puede encontrarse la solución al problema.

IV. Tanto el particular como el singular aparecen como conceptos y como referentes. Se concibe que tanto el concepto de particular como el de singular son estructuras isomórficas con sus referentes, el esquema y el individuo respectivamente.

El individuo existe en el espacio y en el tiempo. Su concepto está en la mente. El problema por resolver es, entonces: ¿cómo puede el concepto de un individuo determinar lógicamente la existencia de su referente? La intensión individual debe contener de algún modo de la intensión; la existencia, en una parte necesaria de la esencia; la referencia, en una parte necesaria del sentido. Esto significa que la existencia espacio-temporal debe convertirse en una interpretación lógica.

Esta tarea sólo puede lograrse si puede mostrarse que las dos dimensiones, la del pensamiento y la de la existencia, son continuas, esto es, son partes de una y la misma estructura que las abarca y en la cual forman un continuo. Así, debe haber un espectro del significado que comienza en el pensamiento y continúa, sin interrupción, hasta el referente del pensamiento.

En seguida se discute un intento de realizar una interpretación lógica de la existencia espacio-temporal semejante. Su esencia es una estructura especial de la intensión que atañe a la existencia y sólo a la existencia.

Rynin somete a discusión significados que sólo se realizan en la existencia y cuya realización en la existencia es una condición necesaria para comprenderlos. Hay casos en que sólo después de tener experiencia de alguna manifestación existencial de un concep-

to, podemos comprenderlo; en ellos encontramos que la esencia, en la medida en que la captamos, no sólo entraña la existencia sino que depende de ella. En estos casos la idea o concepto sólo se clarifica cuando se realiza. El proceso artístico de creación de una idea en la realidad pertenece a esta especie de significados. Rynin menciona otros ejemplos, como el alpinismo; pero de hecho ha tocado un rasgo general del significado. Ningún concepto puede cla-

rificar todo su significado si no es experimentado.

La lógica no ha prestado suficiente atención a este hecho. Puede decirse que su tratamiento más extenso es la lógica trascendental de Kant, tanto en su primera como en su tercera Crítica (aunque no siempre se ha comprendido claramente la conexxión entre ambas). En nuestra época tenemos las infatigables investigaciones de Husserl sobre la constitución de la realidad y la naturaleza de la evidencia. La Evidenz de Husserl surge de un acto de visión en el que se asevera la presencia del objeto como resultado del cumplimiento acumulado de todas las intenciones anticipatorias. Conocer es una acción cuyo objetivo, en estadios sucesivos de captación del objeto, es a la vez cumplimiento de la clarificación y cumplimiento de la tendencia cognoscitiva.

Una lógica que no trate de estos estadios del significado no puede decirse adecuada al proceso del pensar. Lo que se necesita es una noción lógica del significado, que sea comprehensiva e incluya todos los estadios del significado, desde la adivinación hasta la plena experiencia del significado en la existencia.

V. Existe una noción que abarca todos esos estadios del significado: la noción de valor. Valor es significado en sus variadas formas de cumplimiento.

La antinomía de que hablábamos puede resolverse, por lo tanto, por una lógica del valor, una axio-lógica. La transición de la idea a la cosa, de la esencia a la existencia, es un proceso valorativo. En la axiología formal la transición es del valor sistémico al valor intrínseco. A los estadios de significado corresponde la jerarquía de estructuras significativas, que es una jerarquía de dimensiones valorativas.

Lo que se crea en el proceso de transición de la esencia a la existencia es valor; el proceso es una creación de valor. Lo existente aparece como el valor creado, la esencia; el significado original es el material para el valor, más y más diferenciado, y a la vez la pauta para esta diferenciación; es a la vez dynamis y telos, en terminología de Aristóteles. El significado original se articula cada vez más, tanto en la acción como en el pensamiento, hasta que lo que era adivinado se convierte en obra realizada. En cuanto tal, re-

presenta el significado original en su plenitud y compleción. El papel teleológico del significado original, en este proceso, es el de una pauta, el de un objetivo que nunca se pierde de vista.

Hay un proceso lógico necesario que conduce de la esencia a la existencia. Es un proceso de significado que alcanza un contenido intensional cada vez más rico, el cual puede conducir a contenidos infinitos —es decir, a contenidos de un número infinito de propiedades o de un número de infinitas propiedades, esto es, de propiedades de significado infinito. El individuo concreto puede, entonces, definirse como la extensión de una intensión de contenido infinito.

VI. A esta luz podemos resolver el problema de nuestro ejemplo original. "Sócrates es un hombre" combina términos de dimensiones diferentes. Lógicamente, si no encontramos una conexión entre ellos, es tan incomprensible como "la virtud es roja". La conexión, sostenemos, es axiológica. Una predicación es una valoración, Sinnesbereicherung (enriquecimiento de sentido) en términos de Husserl. El término "hombre" se extiende sobre todo el espectro del significado, del significado sistémico "un animal racional" o "un miembro de la especie humana", al significado extrínseco y particular "un miembro de la humanidad" y al significado intrínseco e individual "era un hombre de todo a todo, no volveré a ver su igual", como loaba Hamlet a su padre.

Lo que sucede con el predicado "hombre" sucede también con el sujeto de nuestra proposición. "Sócrates" puede tener el significado puramente sistémico del "nombre propio" de la lógica extensional, o puede tener el significado extrínseco de un haz de propiedades, o el significado intrínseco de la plenitud del individuo. Así, en "Sócrates es un hombre", tanto el sujeto como el predicado pueden extenderse sobre todo el campo del significado; y pueden ajustarse libremente el uno al otro en cualquier significado que

sea adecuado.