

THEODORE SCALTSAS, Oxford

NUMERICAL VERSUS QUALITATIVE IDENTITY OF PROPERTIES IN ARISTOTLE'S *CATEGORIES*

What is the relation between the colour, the shape, the size of two pennies or two chess pawns? This is the type of question that Aristotle —like other metaphysicians before and after him— undertook to answer in his *Categories*. In one sense they have the same colour, shape, size, but in another sense the colour, shape and size of the first are different from the colour, shape and size of the second because they belong to different entities. It would not help us any to say that we simply have qualitative but not numerical identity between the colour, shape and size of the two entities, for we would beg the question since the whole issue in the case of properties, relations, states is whether qualitative identity is different from numerical identity on conceptual grounds. The publication of Professor Ackrill's *Categories and De interpretatione* in 1963 stirred up a controversy on the subject of which of the two answers Aristotle follows in his system, which, controversy, has remained active until today. The polarity in the controversy developed between Ackrill's position and Professor Owen's position presented in his paper "Inherence".¹ Ackrill supports the view that in the *Categories* Aristotle distinguishes qualitative from numerical identity in the case of individual non substances —individual instances of properties, relations, states— while Owen says that for non substances qualitative identity is numerical identity in Aristotle's *Categories*.² My aim in the present paper is to show that despite the independent significance of the philosophical position of Owen's interpretation of the *Categories*, we cannot attribute to Aristotle the beliefs and theses that Owen attributes to him in his interpretation; there is clear indica-

1. «Phronesis» X (1965), pp. 97-105.

2. R. E. Allen in *Individual Properties in Aristotle's Categories*, «Phronesis» XIV (1969), pp. 31-39, and G. B. Matthews and S. M. Cohen in *The One and the Many*, «Review of Metaphysics» XXI (1968), pp. 630-655, have followed the general line of Ackrill's interpretation; while B. Jones in *Individuals in Aristotle's Categories*, «Phronesis» XVII (1972), pp. 107-123, has tilted towards Owen's rendition of the categorial structure; (I am grateful to Mr. Jones for inciding the common points between the position he developed in his paper and Owen's view. It should not be thought that this necessarily represents Jones' present analysis of the categorial system).



tion that Aristotle was working along the lines of Ackrill's rendition of the
 ext. By this I do not mean to imply that the categorial scheme under Ackrill's
 interpretation is free of philosophical problems, including among them pro-
 blems that have been pointed out by Owen in "Inherence". Rather I wish
 to claim that regardless of which problems Aristotle's metaphysical system
 of the *Categories* faces —of which there are several, and very important,
 but which shall not be discussed here— there is no question as to the position
 assumed by Aristotle in this work of his, which is presented in Ackrill's
 translation and commentary. Owen's shrewd philosophical observations are
 misdirected against Ackrill's interpretation and should be redirected against
 Aristotle's system in the aim to stimulate and encourage the creation of an
 ontological scheme which will resolve the fundamental limitations of the
 categorial structure.³

3. A third approach to the problem of the non substance individuals in the *Categories*
 is the tendency to show that in some sense a non substance individual is peculiar to
 an individual substance and in some other sense it is a universal, identical simpli-
 citer to non substance individuals correspondingly related to other individual substances.
 E.g. Socrates' colour is in some sense peculiar to him and in some sense identical simpli-
 citer with Plato's colour. In this way, it is claimed, the two opposed interpretations of
 the non substance individuals of the controversy discussed in the present paper appear to
 be married in one and the same rendition of these individuals. Such has been G. Matthews'
 and M. Cohen's effort on the latter part of their otherwise illuminating paper (op. cit.),
 where they offer their own version of the non substance particulars, "which, although Ari-
 stotelian in flavor, is not meant to be a reading of Aristotle." (p. 651) "The notion of a
 quality individual... (breaks down) the absolute contrast between an individual and a
 universal." (p. 653) Unfortunately, their attempt is unsuccessful and based on a major
 confusions. The first is that between qualitative identity and numerical identity. In trying
 to show their quality individuals to be in some sense particulars and in some sense universals
 they have misconstrued the qualitative identity between particulars as a
 numerical identity between the particulars or phases of the particulars. Thus
 they claim: "The color of Fenimore is individual insofar as it is subject to change. It changes,
 in fact, if and when Fenimore himself changes in color. It is universal insofar as the color
 of Fenimore (at a certain time, or simpliciter) may be identical with the colour of
 Felix." (p. 654) [That they are talking of numerical identity between the colours is clearly
 stated in a further explanation they offer: "...in addition to the possibility of identifying
 the color of Felix with the color of Fenimore simpliciter (so that whatever is true of
 one will be true of the other), there is also the possibility of identifying one with the other
 with a temporal qualification." (p. 653)] If Fenimore's colour changes when Fenimore
 changes in colour, then there is no sense in which Fenimore's colour will be identical with
 Felix's colour which changes when Felix changes in colour. Whether we individuate Feni-
 more's brown and Felix's brown as two ways of being brown or as brown bearing such
 and such an existential dependence on Fenimore or on Felix, etc., we shall have to some-
 how introduce some qualitative difference between them to show them to be distinct. Once

Very briefly, the Aristotelian categorial structure is the following. There are the primary substances which are such entities as animals, trees, rocks, desks, etc., and in general all material objects. The secondary substances are whatever would be a proper answer to the question what the primary substances are; e.g. “animal”, “tree”, “rock”, “desk”, etc. The third and fourth groups consist in whatever would describe the primary substances but not in the sense of giving a proper answer to the question of what the primary substances are. In one of the two groups we have the most specific such entities, such as the most specific colours, shapes, sizes, relations, states, etc., that primary substances are characterized by; in the other we have the more general properties —colour, shape, size, etc.— relations, states, etc., under which these specific ones are subsumed — in an ontological classificatory system. (For a detailed discussion of the distinctions made by Aristotle between these groups, see Ackrill, *op. cit.*, pp. 74-76, reserving questions concerning the most specific non substances for the discussion that follows). The Ackrill-Owen controversy centers on the rendition of the most specific non substance entities such as Socrates’ colour, shape, height, generosity, etc. (I shall use the expressions ‘the colour in Socrates’ and ‘Socrates’ colour’ interchangeably in what follows). The Greek expression τὸ τὶ μέλαν which denotes an entity —under the genus “colour”— which is found ἐν ὑποκειμένῳ (in a subject) is, like its English equivalent, “the individual black”, ambiguous. It might be taken to denote the colour whose life span is restricted by the life span of the particular substance in which it is found to be; for example, in this vein of thinking, the colour of this ‘x’ is what will cease to be if you blot out the letter token in single quotations in this sentence with correction liquid paper. Alternatively, it might be taken to denote the specific shade of black exhibited by the above letter token, which —shade— will survive the blotting out of the token since it characterizes all the letter

this difference is introduced in their identity, they cannot be identical *simpliciter* but only qualitatively so, if they happen to be. Or, some phases of Fenimore’s colour can be qualitatively identical with phases of Felix’s colour but not identical *simpliciter* with them. We cannot have our cake and eat it too: we cannot individuate a quality individual making it peculiar to a substance individual and then act as if we are talking of the universal quality; if we individuate it in this way, we have to suffer the price of distinguishing it from the universal quality. In general, we cannot dissolve the problems of the debate on the universality and particularity of the non substance individuals by mistaking qualitative identity as another sense of numerical identity: either the two colours are numerically identical (Owen) or numerically distinct and qualitatively identical (Ackrill). Thus, the old debate remains.

tokens on this page. Ackrill has argued that the first type of entities —each unique to, and existentially dependent on the one substance only— constitute the non substance individuals in the Aristotelian system; while Owen argued that the non substance individuals are the most specific kinds of non substance, such as a shade of colour or a type of virtue, which can characterize and may depend existentially on many different substances.

In discussing the problem of the ontological rendition of the non substance individuals in the Aristotelian categorial scheme I shall follow Owen's terminological distinctions in order to avoid the ambiguity above, of such expressions as "the individual black", etc. Thus, "pink" will denote one of the colours and "vink" a shade of pink; all three, namely "colour", "pink" and "vink" can characterize many different substances. In addition, we shall at times speak of alternative shades of pink, on a par with vink, which we shall denote by 'tink', 'rink', etc. Such terms as 'Socrates' vink' or 'Plato's vink' will be employed in presenting Ackrill's position and will denote individuals each of which is a token of a shade of pink, restricted in its life span by the life span of the substance it is in, namely Socrates or Plato in the two above. According to Ackrill, "colour", "pink", but also "vink" and "tink", etc., are all in one group, that of the non substance genera and species, while the non substance individuals are such entities as Socrates' vink, Plato's vink, etc., each restricted to one substance. According to Owen, Aristotle never talks of such entities as Socrates' vink; the non substance individuals, e.g. under "pink", are such specific shades as vink, tink, etc., all of which can be found in several primary substances. "Pink", "colour", etc., constitute the non substance species and genera in that category. Ackrill's non substance individuals are the instances —occurrences— of the specific kinds of non substance; while Owen's non substance individuals are the specific kinds of non substance themselves.

The line I will follow in my argument is to show that Owen's interpretation cannot accommodate in its rendition of the categorial scheme a claim made by Aristotle in 1b6-9. An explanation has been offered for that passage in order to show it to be in accord with Owen's interpretation, but if we follow the implications of this explanation to their end we shall see that not only do they undermine the categorial system, but they do so in a way which Aristotle would have been in the position to detect. My conclusion will be that although the Aristotelian categorial scheme faces problems under Ackrill's interpretation, the scheme still represents an advancement in metaphysics, having escaped the fundamental Platonic hurdles and pointing the way for the creation of a system that overcomes the inadequacies which can be found in the categorial scheme as an ontological account. Under Owen's interpreta-



tion, the categorial scheme not only faces these problems, by failing to offer answers where such a system would be called upon to do so, but it further fails to support the claims already made in the exposition of the system in the *Categories*.

The Aristotelian position that cannot be incorporated in Owen's rendition of the categorial ontological scheme is the following:

ἀπλῶς δὲ τὰ ἄτομα καὶ ἐν ἀριθμῷ κατ' οὐδενὸς ὑποκειμένου λέγεται, ἐν ὑποκειμένῳ δὲ ἓνια οὐδὲν κωλύει εἶναι· ἡ γὰρ τις γραμματικὴ τῶν ἐν ὑποκειμένῳ ἐστίν.

(Κατηγορίαι, 1b6-9, OUP, 1949)

Things that are individual and numerically one are, without exception, not said of any subject, but there is nothing to prevent some of them from being in a subject — the individual knowledge of grammar is one of the things in a subject. (Categories, 1b6-9, Ackrill's translation.)

Aristotle is here talking of the substance and the non substance individuals. He says that some of these individuals —the non substance ones— can be in a subject, in the substance individuals. But the important commitment made in this passage is that Aristotle offers us a sufficiency criterion for not being said of a subject. When we deem something an individual we expect it not to be said of anything else. But what must surely be prevented is that we read the passage as offering the condition under which something is to be treated as an individual in the categorial scheme. We cannot read the passage as saying that being an individual is not being said of a subject. Aristotle is not here defining the notions of being *atomon* and being numerically one. Rather, starting from these notions he concludes that whatever is *atomon*, individual, and numerically one cannot be said of a subject. These considerations offer the peripheral reasons that would prevent one from defining the individuals of the non substance categories as being those which are not said of any entity (although one could very well use this feature to refer to them.) To find out what Aristotle means by being individual and numerically one we have to first examine the core reasons why “not being said of a subject” would fail to satisfy the demands made by, 1b6-9. Then an alternative explanation will be examined which will be found to satisfy the Aristotelian claim that the entities which are individual and numerically one cannot be said of other entities. We shall then be in the position to determine which the non substance individuals are. Namely, we shall be able to determine whether the non substance individuals are such entities

as vink, tink and rink —Owen's position— or such entities as Socrates' vink and Plato's vink — Ackrill's position. Thus, the comprehension of Aristotle's notion of individuality and numerical oneness will lead to the determination of the intended non substance individuals.⁴

What we are called upon to determine is the sense of individuality and numerical oneness which will show the individuals of the non substance categories to possess this numerical oneness, but the species and genera not to possess it. My claim is that in Owen's rendition of the individuality of the non substance individuals their numerical oneness is shared by the non substance species and genera as well, and so, no distinction can be made on these grounds. Whereas in Ackrill's rendition of individuality, the numerical oneness of the non substance individuals does not characterize the species and the genera, and thus it distinguishes the individuals from all the other non substance entities. It is unfortunate that Aristotle does not help us by any direct means in determining the notion of individuality for the non substance individuals. The indirect means he does offer are (a) two senses of universality against which we can construct corresponding senses of individuality, and (b) one sense of individuality which applies only to the substance individuals. The two senses of universality are derived from the two fundamental relations of the categorial scheme:

- (i) that is a universal which can be said of many entities;
- (ii) that is a universal which can be in many substances.

Corresponding to these notions of universality we can define the following two notions of individuality:

- (1) that is an individual which is not said of any entity;
- (2) that is an individual which cannot be in more than one substance.

The notion of individuality (of substance individuals only) that Aristotle does offer in the *Categories* is given in 2a11-13 where he says that the substance individuals are not said of any subject and are not in any subject. Clearly, this notion of individuality cannot be employed in the case of the non substance individuals which must be at least in one substance if they are to exist at all. Consequently, we have to resort to the notions of individuality given in (1) and (2) above in order to determine the sense in which

4. Aristotle distinguishes oneness from numerical oneness by requiring that in the latter we have both qualitative and material or spatiotemporal identity. (1016a32-b3, 1016b32-33 in *Metaphysica*, ed. W. Jaeger, Oxford, 1957.) Hence, an individual property which is numerically one (and not simply qualitatively one) must be defined in terms of its material and spatiotemporal specifications, on top of the qualitative ones. Owen's interpretation will fall short of justifying the numerical oneness that characterizes the individual properties, in contrast to their species and genera, while Ackrill's will explain it.

the non substance individuals are individuals, and thereby resolve whether the non substance individuals are entities such as vink and tink or Socrates' vink and Plato's tink. If the sense of individuality we shall attribute to the non substance individuals fails to show them enjoy a numerical oneness which the species and the genera do not enjoy, then we have failed in grasping Aristotle's intentions concerning these individuals.

There are three senses of individuality we can derive from (1) and (2). Either a non substance individual is an individual in the sense of (1), which is the line that Owen followed, or it is an individual in the sense of (2), which is the line that Ackrill followed, or it is an individual in the sense which involves both (1) and (2). The possibility of using both (1) and (2) to secure the individuality of the non substance individuals will be discussed as a third alternative, but it will be dismissed as not required for the type of entities Aristotle is considering in the *Categories*. Thus, although in the end non substance individuals will be found to satisfy both (1) and (2), (2) will be the necessary and sufficient condition for rendering something a non substance individual and securing that numerical oneness applies exclusively to the individual non substances.

"To say that vink is a particular colour is to say that it, or its name, cannot be predicated: it is not to say that it cannot be found in more than one subject. Any particular shade of colour is of course reproducible." (Owen, op. cit., p. 99). Owen hereby commits himself to the individuality of non substance individuals as derived from (1): the difference between the individuals and the species and genera, which are not individuals, is that the latter are said of entities —the individuals among others— while the former are not. The difficulty with defining individuality through the "said of" relation, expecting it to show the non substance individuals to be numerically one in contrast to the species and genera, becomes evident when we try to offer an explanation of the nature of this relation — which Owen does not offer in his paper. I shall propose two models on the basis of which we can understand the "said of" relation, which constitute the two main ontological relations which lend themselves to that purpose; the relation of "having as a part" and the relation of "having as a member". I shall then show that according to the first we reach incomprehensible conclusions concerning the ontological constitution of the species and the genera of both the substance and the non substance categories; according to the second, we fail to show any difference between the numerical oneness of the non substance individuals and the numerical oneness of the non substance species and genera — even though according to the defined notion of individuality, the first are individuals and the latter are not. (To satisfy 1b6-9, the defined notion of individuality for the non

substance categories must secure numerical oneness only for the individuals, (not the species and genera). Hence, this sense of individuality will have to be abandoned. Owen will then be presented with the challenge of offering a model in the light of which we can understand the relation of the non substance individuals to their species and genera, but a model which will satisfy Aristotle's claim that the individuals be numerically one while the species and genera many. (I do not see how Owen will be able to do so, since it is an essential thesis of his position that not only the non substance species and genera but the non substance individuals, too, are *r e c u r r e n t*. In Ackrill's view, on the other hand, the non substance individuals are non recurrent while their species and genera are recurrent). Further, I shall show that in the latter case, the set-theoretic rendition of the "said of" relation—which does offer an intelligible account of the categorial scheme, though it cannot meet the demands Owen's interpretation makes on it—Owen's interpretation of the categorial scheme would be found guilty of the paradox of implication, which Owen charges to Ackrill's interpretation (Owen, op. cit., 101-102). It will then be established that the paradox of implication is independent of admitting or not admitting the Ackrill type of non substance individuals in the categorial system.

We have to show that, although both vink—a non substance individual in Owen's rendition—and pink—a non substance species—are in many subjects, vink, being an individual, is numerically one, while pink is not. We begin with the observation that there is a universality that pink enjoys which vink does not, and this universality is conferred upon it on the basis of the fact that pink is said of vink, tink, rink, etc., while vink is not said of anything. Let us try to explain this relation of "being said of a subject" relying, firstly, on a way in which the term 'atomon' can be understood, namely the sense of being "indivisible". Since vink is said to be atomon and numerically one, which pink cannot be because it is said of other entities, one could naturally be led to believe that pink is not atomon—indivisible—precisely because it can be divided into the entities of which it is said. Vink is indivisible because it is said of no other entities and, consequently, it has no parts into which it could be divided. The components of pink are vink, rink, tink, etc. That Aristotle could not have possibly thought of the relation of "being said of" along the lines of "having as a part or component" becomes evident from the examination of cases where, unlike the case of colour, the individuals falling under the species cannot be seen as being parts of the species, but have to be seen as being members of it. Consider "shape"; there is no way one can render this species so that the individuals: "circle", "square", "triangle" are parts of it and not members of the class of "shape". "Circle"



cannot be related to “square” in the way that a fourth of a wooden stick is related to another fourth of that wooden stick. This is further accentuated in the case of substances. Since the relation of “being said of” is the same in the substance category and the non substance categories, then Socrates should be a p a r t o f some entity which is “man”. It is very difficult to imagine what such an entity would be like, if Socrates is to it what, e.g., one tenth of this page is to the whole page. Clearly such a view leads to incomprehensible conclusions concerning the constitution of the species and the genera in both the substance and the non substance categories, which would mean the end of the whole categorial structure. We therefore abandon the relation of “having as a part” as a model for the “being said of” relation and turn to the membership relation.

That pink is said of vink —the non substance individual in Owen’s interpretation— is to be understood as meaning that vink is a member of the class of pink. Similarly, pink is a member of the class of colour and Socrates is a member of the class of man. What makes this solution unavailable to Owen’s interpretation is that it does not offer any way of rendering o n l y the non substance individuals numerically one, but it confers the same numerical oneness to all: individuals, species and genera, since classes are numerically one, on a par with their members. This is unacceptable on the basis of 1b6-9 which determines that what is atomon and numerically one is not said of any subject. Therefore, if the species and the genera are indistinguishable with respect to numerical oneness from the individuals, they cannot be said of an entity, which will prohibit them from being species and genera. (Let me emphasize that I am not here claiming that Owen cannot distinguish individuals from species and genera in his interpretation — he can, by claiming that the individuals are not classes while the species and the genera are; what I am charging Owen with is that he cannot employ the set-theoretic model to distinguish between them i n t h e w a y A r i s t o t l e d o e s, by showing the individuals to be numerically one while the species and genera numerically many). What lies at the heart of the problem of the set-theoretic interpretation of the relation of “being said of” and the demands made of it, is the realization that a set is as qualified for being numerically one as are the members of the set. If vink is a member of the set pink, vink is not more or less divisible than pink; neither is pink a plurality and only vink numerically one. Although we can form a set which is a collection of half the members of the set “pink”, we do not thereby form what would be considered half the class of pink in the way that eating half a cake leaves us with only half the cake. A set is not an aggregate of things. Consequently, although we can distinguish between members of a class of elements, and even imagine some

members taken away from the class or some elements being added to the class, we do not thereby render the class into a plurality, an aggregate of many things. We cannot divide a class into its members (as parts) although we can form classes which are made up of only each of these members or groups of them. (I.e., we can separate the members of a class from one another but not thereby divide the class into any parts). The numerical oneness of a class is not dependent on the number of elements it has or the increase and decrease of the number of elements it has. Therefore, we could not use the fact that a class has members to show that it is not individual and numerically one on a par with any of its members which is not a class and hence has no members. An element which is not a class, as well as a class of only one member and a class of many members share the same individuality and oneness. That they differ in complexity does not make the first individual and numerically one while the others divisible and, each, numerically many. It is true that we can use the fact that a class has members to define a sense of universality which will show any class to be a universal on the basis of its being so related to many entities, its members. But we cannot force this defined sense of universality into the mould of plurality and thus secure the correspondence between individuality and numerical oneness. Being related in some particular way to many entities might make something into a universal but it does not have to make it "many" —a plurality— itself. Therefore, the relation of "having as a member", if employed to explain the sense in which we are to understand the "said of" relation, will not serve to explain why non substance individuals are numerically one in contrast to their species and genera. But in Owen's interpretation one has to rely on the "said of" relation to offer this explanation. Hence, Owen is not free to adopt the set-theoretic account to explain what, according to his interpretation, is meant by the relation of "being said of" an entity. On the other hand, such a rendition of this relation can be adopted if we drop the requirement that the individuality and numerical oneness of the non substance individuals must be explained through this relation; if the individuality of non substance individuals is defined in Ackrill's sense, we are free, if we so choose, to employ the set-theoretic interpretation of the "said of" relation between individuals and their species and genera.

We have seen so far that neither the "have as a part" nor the "have as a member" relation can be incorporated in Owen's interpretation. The first leads to incomprehensible renditions of the species and the genera, while the second shows the species and the genera to be numerically one along with the non substance individuals. But in the latter case further evils follow. If the non substance species and genera are classes of non substance indivi-



duals —where the individuals are not classes themselves— then the relation of the non substance individuals to the primary substances they are in will be different from the relation of their species and genera to these primary substances. That is, vink will be in Socrates in a different sense of ‘in’ than pink or colour will be in Socrates. This is a weakness that Owen calls the paradox of implication and which he uses against Ackrill’s interpretation of the categorial scheme (Owen, *op. cit.*, pp. 101-102); but this paradox would be found to emerge within his own interpretation of this scheme under the presently assumed set-theoretic interpretation of the “said of” relation. My aim here is to show that, assuming the set-theoretic interpretation of this relation, independently of the problems created in connection with 1b6-9, the paradox of implication is introduced; this shows that the paradox of implication is independent of admitting into the categorial system such entities as Socrates’ vink or Plato’s vink —Ackrill’s non substance individuals— which is a connection insinuated by Owen (pp. 101-102).

To see this, suppose that the relation between Socrates —a substance individual— and vink —a non substance individual in Owen’s reading— is α , whatever that might turn out to be. The structure of this relation can be

schematically presented as follows: $SI \xrightarrow{\alpha} NSI$, where ‘SI’ stands for a substance individual and ‘NSI’ stands for a non substance individual. Since the relation of a non substance individual to its species is that of “being a member of”, call it relation β , e.g. vink is β -related to pink, the relation of a substance to a non substance species, e.g. of Socrates to pink, can be schematically presented as follows: $SI \xrightarrow{\alpha} NSI \xrightarrow{\beta} NSS$, where ‘NSS’ stands for a non substance species. This shows that pink is in Socrates in a different, qualified sense of ‘in’ than vink is in Socrates.

It could not be claimed that the relation between a substance individual such as Socrates and a non substance species such as pink could be α for the following reason. For the species pink to be in Socrates it is necessary and sufficient that a member of the class of pink be in Socrates. It is necessary because we cannot have the case where the non substance species is in a substance individual without a member of that class, the species, being in that individual. It is impossible that there be pink in Socrates while there is not one of the shades of pink —such as vink, tink, rink, etc.— in him. It is sufficient because, if vink is in Socrates it then follows that Socrates is pink and coloured, hence, that pink and colour are in Socrates, too. Consequently, if for the species pink to be in Socrates it is necessary and sufficient for one of its members to be in Socrates, then the relation between the class pink and Socrates could not consist in anything else but the relation of some

(or even all the) member(s) of this class being in Socrates. Therefore, for a class of non substance individuals to be in a substance individual it is necessary and sufficient that one of the members of the class be in that individual. Then, the relation between the class and the substance individual is not that of being in it, in the strict sense of 'in', but that at least one of its members—at most all—being in it, in that sense. Vink is α -related to Socrates while pink is $(\alpha-\beta)$ -related to Socrates. (If John is the son of — (α) — Smith who is a member of — (β) — the Rotary Club, then John is not the son of — (α) — the Rotary Club, but he is the son of a member of — $(\alpha-\beta)$ — the Rotary Club). Thus, the paradox of implication will emerge in any interpretation of the categorial scheme which employs the set-theoretic model for the "said of" relation. The paradox of implication is avoided in a metaphysical system in which the non substances are rendered concepts, describing—or being applicable to—the primary substances: then vink, pink and colour, as well as generosity and virtue, all apply to Socrates in the same way. But in the *Categories* the non substances are "onta", not concepts.

Turning to Ackrill's interpretation, the individuality of the non substance individuals, e.g. Socrates' vink, is not derived from the relation of "being said of"—i.e. that these individuals are such that they are not said of anything else—but from the relation of "being in a subject". The non substance individuals are atoma and numerically one because they can be in only one substance. (See (2), p. 333 above). While the species and the genera are not individual and numerically one because they can be in many substances. Here, the plurality of each non substance species and genus is founded on its recurrence in nature, while the non substance individuals are non recurrent, unique. In Owen's rendition, genera, species but individuals, too, are all recurrent. A very clear indication that Aristotle intends the non substance individuals to be non recurrent is found at 4a15-16. He wishes to show that, whereas individual substances can receive contraries, e.g. a particular man can become at times white and at times black, individual and numerically one non substances cannot. One of his examples of non substance individuals is an action οὐδὲ ἡ αὐτὴ καὶ μία τῷ ἀριθμῷ οὐκ ἔσται φαύλη καὶ σπουδαία ["nor will numerically one and the same action be bad and good", (Ackrill's translation)]. If what Aristotle had in mind was not a particular act (performed by a particular substance) but a type—Owen's non substance individuals—then Aristotle could not have claimed that, e.g. the non substance individual "act of generosity" could not receive contraries, since it could be the case that Socrates' act of generosity was good and Plato's bad. Aristotle must have in mind here as the numerically one non substance individual a particular act performed by a substance individual; this is the sense of individuality

derived from (2), the one employed in Ackrill's interpretation. Since in this interpretation no use is made of the "said of" relation for establishing the individuality of the non substance individuals, one would be free to adopt the set-theoretic rendition of the species and genera and thus understand the "said of" relation along the lines of "having as a member". (We saw the reasons why this relation was not available to Owen). Thus, in Ackrill's interpretation we can assume that the genus pink is the class which has as members the species vink, tink, rink, etc., and the genus colour is the class that has as members the genera pink, red, green, etc.

An objection might be brought to the claim that the relation of "being in a subject" is adequate for establishing the individuality and oneness of the non substance individuals in contrast to the non substance species and genera (which, on the basis of 1b6-9, cannot be individual and numerically one since they are said of other entities). It might be said that it is conceivable that there be species and genera which can be in only one individual. For example, there might be some substance in the world which belongs to a type of its own and is necessarily a unique entity, and further, which has some properties which are necessarily peculiar to this type of substance only. Suppose there is a substance S which is necessarily the only substance of its kind and which is characterized by the species "omnipotence", a species that can be in substances of this kind only. Ackrill's non substance individual will be S' omnipotence which is an individual that can occur only in S. But since S is unique of its kind and omnipotence applies to this kind only, it follows that the species omnipotence can be found to be present in only one substance, viz. S, too. It follows that since the species can be in only one substance, it, too, is an individual, numerically one non substance, according to Ackrill's notion of individuality, like Socrates' omnipotence that is in S. Hence, the relation of "being in a subject" is not itself adequate to secure the attribution of individuality to the non substance individuals only, but some species and genera might turn out to be individual and numerically one, too. In such a case, one might introduce as a defence of Ackrill's interpretation that in the case of the non substance individual: Socrates' vink, it cannot be in more than one substance due to logical reasons, having to do with the way this entity is individuated in the system (via Socrates' identity); whereas in the case of the species "omnipotence" its *i n d i v i d u a t i o n* does not restrict it to one substance only. Whatever the reasons might be that omnipotence is in S only, they have nothing to do with the identity of omnipotence in the way that the limitations of Socrates' vink have to do with its identity. So, omnipotence *c a n* be in more than one substance, namely in any substance of the type of S, but since there can be only one such substance, it is in one only.

According to (2), individuality is conferred upon what cannot be in more than one substance, not what is not in more than one substance; omnipotence is not restricted by its identity to one substance only but to a type that includes S as its only individual). But if this defence is not completely satisfactory to some, then —still along Ackrill's interpretation— one could change and enrich the requirements of being an individual, by expecting that both (1) and (2) be satisfied for an entity to be a non substance individual; it would have to be an entity that could not be in more than one substance and which would not be said of anything else in the world. Then the species "omnipotence" would not qualify as an individual since it would be said of the substance's—S— omnipotence. (One could still retain the set-theoretic interpretation of the "said of" relation in this case, even though this relation is now employed to determine the individuality and numerical oneness of non substance individuals, without falling into the problems that Owen's interpretation faced with this rendition of the relation. The reason is that in the present case, "not being said of a subject" is only one of the two criteria of numerical oneness; the second criterion — (2) — will prevent non substance species from being numerically one, which Owen's interpretation could not prevent). But the reason why one does not need (1) to secure the individuality of the non substance individuals —as things stand in the *Categories*— is that Aristotle is not considering any such necessarily unique substances with properties necessarily unique to them in building his ontological scheme of the categories. He is working with such substances in mind as animals, trees and houses, none of which are restricted to one substance per type of substance; for such an ontology, it is adequate to rely on the relation of "being in a subject" —individuality criterion (2)— to secure the numerical oneness of, only, non substance individuals.

A further objection might be brought against Ackrill's interpretation: assuming that that is individual and numerically one which can be in one substance only, then apart from Socrates' vink, one could speak of Socrates' pink and Socrates' colour which would also be individuals since they can be in Socrates only. Since Socrates' colour would be said of Socrates' vink, the former would be on the genus level; but it would be numerically one, being only in one substance, which is incompatible with 1b6-9. The response to this objection depends on what we take the referent of, e.g., 'Socrates' pink' to be. One version would be that Socrates' pink is an individual which is not a class and which goes through different phases, being vink, tink, rink, etc., according to the changes in the shade of Socrates' pink complexion through his life. Matthews and Cohen have offered a reason why this rendition of Socrates' pink would be unacceptable to Aristotle: it would allow non sub-

stances to have a characteristic exclusive to substances, namely that of receiving contraries, (op. cit., p. 651). Socrates' pink could be now vink (on the white side), now tink (on the black side), which can be true of substances, e.g. Socrates, but not of non substances. A further reason why Aristotle would not individuate such non substances is that it would allow accidents to be in accidents: Socrates' vink would be in Socrates' pink as well as being in Socrates. But Aristotle allows non substances to be in substances only, (2b3-5). Hence such a rendition of Socrates' pink would be unacceptable to Aristotle in the *Categories*.

The second rendition of "Socrates' pink" is that it be a class of all the individual colours that are found in Socrates throughout his life span. Then, Socrates' vink, Socrates' tink, etc., would be members of the class of Socrates' pink. Since one could say of Socrates' vink that this is Socrates' colour, it would follow that Socrates' pink (or colour) is said of Socrates' vink, and as such, it must be on the species (or genus) level. But Socrates' pink can be in Socrates only; hence, it is individual, numerically one, and it is said of other entities — an undesirable conclusion. There are two responses to this objection. First, a methodological one. Aristotle does not and would not individuate such classes as Socrates' pink or Socrates' colour, since going from the individuals to the species and from them to the genera, the principle of ascension is guided solely by the intention of capturing the *type* of the individuals in question, regardless of the dependence of these individuals on substances. The latter is satisfactorily established at the level of individuals. Going up the category, the groupings favoured are those expressing just *what* the individuals are. Hence "pink" and "colour" will be preferred to "Socrates' pink" and "Socrates' colour" as species and genus of colour individuals. Now, if one insists that such classes as "Socrates' pink" should find their place in the categorial scheme, then, in order to prevent such a class from being considered numerically one —since it can be in one substance only— we would have to introduce (1) along with (2) as a criterion of individuality in the non substance categories. Thus, Socrates' pink would satisfy (2), being in one substance only, but would not satisfy (1), since it is said of Socrates' vink; hence, it would not qualify as an individual. This would be the second response, which would protect the Aristotelian system under Ackrill's interpretation from the objection stated above.

If, on the other hand —following the suggestion of the methodological response— one did not wish to include such classes as "Socrates' pink" and "Socrates' colour" in the categorial scheme, one could employ the expressions 'Socrates' pink' and 'Socrates' colour' as being co-referential with 'Socrates' vink'. In general, the decision on the use of such expressions is not significant

in considering which interpretation of the *Categories* to follow, since Aristotle does not employ expressions of this form to refer to non substances.

Although I have argued that Ackrill's interpretation of Aristotle's categorial system pays justice to Aristotle's arguments in the *Categories*, I do not thereby claim that the categorial system under this interpretation does not face any difficulties. In fact it does, and very significant ones. Apart from Owen's breakdown of the categories—which should be seen as a philosophical problem of the Aristotelian system rather than a problem of Ackrill's translation as Owen presents it (op. cit. p. 101)—there are other serious problems—not discussed here—that the scheme faces, which have to do with the need to provide for accidents being in accidents, a relation that is not allowed in Aristotle's categories, (2b6-6b). These problems have to be faced as philosophical challenges rather than translational or interpretational ones. What the categorial system presents us with is a challenge to reconstruct the whole system in a way so as to, on the one hand, remain true to the main Aristotelian metaphysical positions—thus enjoying the advantages of his system—while being at the same time able to overcome the difficulties that arise in the *Categories*. Specifically, what would have to be carried out would be, firstly, to reconstruct the system in a way that it would be possible to individuate in it entities which are not substances but which have several accidents in them, and, secondly, not to give up the celebrated achievement of Aristotle's metaphysics, namely the existential dependence of the accidents on the substances. If we do give that up, then we fall back to the Platonic metaphysical problems, where accidents were predicated of accidents, but at the price of setting them apart, making them existentially independent of the physical entities in the world. I believe such a reconstruction of the categorial scheme is possible, which would retain the strengths of the *Categories'* system while being armed against the weaknesses this system faces.

ΑΡΙΘΜΗΤΙΚΗ Ή ΠΟΙΟΤΙΚΗ ΤΑΥΤΟΤΗΤΑ ΤΩΝ ΑΤΟΜΙΚΩΝ ΙΔΙΟΤΗΤΩΝ ΣΤΙΣ ΚΑΤΗΓΟΡΙΕΣ ΤΟΥ ΑΡΙΣΤΟΤΕΛΟΥΣ;

Π ε ρ ί λ η ψ η.

Ἡ μετάφραση καὶ τὰ σχόλια τῶν *Κατηγοριῶν* τοῦ Ἀριστοτέλους ἀπὸ τὸν καθηγητὴ J. L. Ackrill (1963) ἔγινε ἀφορμὴ νὰ ξεκινήσει μιὰ διαμάχη μεταξὺ αὐτοῦ καὶ τοῦ καθηγητῆ G. E. L. Owen πάνω στὴν ἀπόδοση τῶν ἀτομικῶν ἰδιοτήτων τοῦ κατηγοριακοῦ συστήματος. Ἡ διαμάχη ἀπλώθηκε

σὲ εὐρύτερο πεδίο, καθὼς καὶ οἱ δύο θέσεις βρῆκαν ὑποστηρικτὲς στοὺς ἑρμηνευτὲς τοῦ Ἀριστοτελικοῦ ἔργου. Στὴν ἀνωτέρω ἐργασία προσπάθησα νὰ δείξω ὅτι, ἀνεξάρτητα ἀπὸ τὴ φιλοσοφικὴ ἀξία της, ἡ ἐρμηνεία τοῦ Owen δὲν ἀντιπροσωπεύει τὴν Ἀριστοτελικὴ θέση τῶν *Κατηγοριῶν*.

Ὁ Owen ὑποστηρίζει ὅτι οἱ ἀτομικὲς ιδιότητες —ἤτοι τὰ στοιχεῖα στὸ χαμηλότερο ἐπίπεδο ταξινόμησης σὲ κάθε κατηγορία (ἐκτὸς ἀπὸ τὴν κατηγορία τῆς οὐσίας), ὅπως π.χ. ἀποχρώσεις τοῦ κόκκινου— εἶναι κοινὲς σὲ διαφορετικὲς οὐσίες. Ἦτοι, μία καὶ ἡ αὐτὴ ἀπόχρωση τοῦ κόκκινου ὑπάρχει καὶ στὸ βιβλίο καὶ στὸ μολύβι. Ὁ Ackrill ἀντιθέτως ὑποστηρίζει ὅτι οἱ ἀτομικὲς ιδιότητες ὑπάρχουν μόνο σὲ μία οὐσία ἐκάστη. Ἔτσι θέτει στὴν κατηγοριακὴ ταξινόμηση ἓνα ἀκόμη ἐπίπεδο, χαμηλότερο ἀπὸ τὸ τελευταῖο τοῦ Owen, ὥστε κάτω ἀπὸ τὴ συγκεκριμένη ἀπόχρωση τοῦ κόκκινου ταξινομεῖ τὸ «κόκκινο τοῦ βιβλίου» καὶ τὸ «κόκκινο τοῦ μολυβιοῦ».

Τὸ ἐπιχείρημα, τὸ ὁποῖο ἀναπτύσσω στὴν ἀνωτέρω ἐργασία ἐναντίον τῆς ἐρμηνείας τοῦ Owen, βασίζεται στὸ ὅτι ὁ Ἀριστοτέλης θεωρεῖ τὶς ἀτομικὲς ιδιότητες τοῦ συστήματός του «ἄτομα» καὶ «ἀριθμητικὰ μοναδικές» (*one*). Βάσει τῆς ἐρμηνείας του ὁ Owen ἀναγκάζεται νὰ ταυτίσει τὴν ἀριθμητικὴ μοναδικότητα (*oneness*) τῶν ἀτομικῶν ιδιοτήτων μὲ τὴν ἀ-τομικότητά τους (ἤτοι, τὸ ὅτι δὲν ὑποδιαιροῦνται σὲ περαιτέρω ὁμάδες). Ὅμως, ἡ μὴ περαιτέρω διαίρεση μιᾶς ιδιότητας δὲν τὴν καθιστᾷ ἀριθμητικὰ μοναδική (ἐν ἀντιθέσει πρὸς τὰ γένη τὰ ὅποια δὲν εἶναι ἀριθμητικὰ μοναδικὰ κατὰ τὸν Ἀριστοτέλη). Συγκεκριμένα, ἡ μοναδικότητα ἑνὸς γένους (π.χ. τοῦ κόκκινου) εἶναι ἡ ἴδια μὲ τὴ μοναδικότητα μιᾶς ἀτομικῆς ιδιότητας (π.χ. μιᾶς ἀπόχρωσης τοῦ κόκκινου), ἐφόσον ἓνα σύνολο δὲν διαφέρει σὲ μοναδικότητα ἀπὸ ἓνα μέλος τοῦ συνόλου αὐτοῦ (ἤτοι, ἓνα «σύνολο» ἀτομικῶν ιδιοτήτων δὲν εἶναι ἓνα «πλῆθος» ἀπὸ ιδιότητες παρὰ μία σύνθετη μονάδα). Συνεπῶς, παρ' ὅλον ὅτι τὸ γένος εἶναι σύνθετη μονάδα, ἐνῶ ἡ ἀτομικὴ ιδιότητα ἀπλὴ μονάδα, δὲν διαφέρουν μεταξύ τους ὅσον ἀφορᾷ τὸ «πλῆθος» τοῦ πρώτου καὶ τοῦ δεύτερου. Ἄρα, ἡ ἐρμηνεία τοῦ Owen ποὺ βασίζεται στὸ ὅτι οἱ ἀτομικὲς ιδιότητες δὲν ὑποδιαιροῦνται, ἐνῶ τὰ γένη ὑποδιαιροῦνται, δὲν μπορεῖ νὰ προσφέρει ἐξήγηση, γιατί ὁ Ἀριστοτέλης διαχωρίζει τὶς ἀτομικὲς ιδιότητες ἀπὸ τὰ γένη ιδιοτήτων βάσει τοῦ ὅτι κάθε ιδιότητα εἶναι ἀριθμητικὰ μία, ἀντίθετα πρὸς τὰ γένη. Ἡ ἐρμηνεία τοῦ Owen δικαιολογεῖ μόνον τὴν ἀτομικότητα ἀλλ' ὄχι τὴν ἀριθμητικὴ μοναδικότητα τῶν ἀτομικῶν ιδιοτήτων.

Ἡ ἐρμηνεία τοῦ Ackrill προσφέρει ἐξήγηση γιὰ τὴν ἀριθμητικὴ μοναδικότητα τῶν ἀτομικῶν ιδιοτήτων (π.χ. τῆς ἀπόχρωσης τοῦ κόκκινου βιβλίου), καθόσον αὐτὲς διαφέρουν ἀπὸ τὰ γένη, ὄχι μόνον εἰς τὸ ὅτι εἶναι ἄ-τομες (δὲν δέχονται ὑποδιαιρέσεις), ἀλλὰ καὶ εἰς τὸ ὅτι κάθε ἀτομικὴ ιδιότητα ἀνήκει μόνο σὲ μία οὐσία (π.χ. στὸ βιβλίο), ἐνῶ τὰ γένη (ὡς

universals) μπορούν να υπάρξουν, τὸ κάθε ἓνα, σὲ πολλές οὐσίες. Τὴν ἐρμηνεία αὐτὴ μποροῦμε νὰ ἐδραιώσουμε ἀκόμη περισσότερο ὡς ἀριστοτελική, ἂν τὴ συνδυάσουμε μὲ τὸ διαχωρισμὸ ποὺ κάνει ὁ Ἀριστοτέλης στὴν *Μεταφυσικὴ* Δ (1016a 32-b 3 καὶ 1016b 31-33) μεταξὺ τοῦ «ἐν» καὶ τοῦ «ἀριθμητικῶς ἢ ὅλως ἐν». Στὴν προκειμένη περίπτωση, ἡ ἀπόχρωση τοῦ κόκκινου τοῦ βιβλίου εἶναι «ἐν» μὲ τὴν ἀπόχρωση τοῦ κόκκινου τοῦ μολυβιοῦ, ἀλλὰ δὲν εἶναι «ἀριθμητικῶς ἢ ὅλως ἐν». Γιὰ μιὰ ἀριθμητικὴ ἢ ὀλικὴ ταυτότητα θὰ ἔπρεπε νὰ εἶναι τὸ εἶδος καὶ ἡ ὕλη ταυτόσημα (π.χ. ἡ αὐτὴ ἐπιφάνεια χρωμάτων) ἢ νὰ εἶναι ποιοτικὰ καὶ χωροχρονικὰ ταυτόσημες οἱ δύο ιδιότητες (π.χ. τὰ δύο χρώματα). Συνεπῶς, γιὰ νὰ προσδιορίσουμε κάποια «ἀριθμητικῶς μία» ἀτομικὴ ιδιότητα σὲ ὁποιαδήποτε κατηγορία πρέπει νὰ προσδιορίσουμε ὄχι μόνον τὴν ποιότητα, τὴν ὁποία ἀντιπροσωπεύει (π.χ. μιὰ ἀπόχρωση τοῦ κόκκινου), ἀλλ' ἐπίσης νὰ ἀναφέρουμε τὸν ὕλικὸ ἢ τὸν χωροχρονικὸ τῆς προσδιορισμὸ (βάσει τῆς οὐσίας στὴν ὁποία ἀνήκει ἡ ιδιότητα αὐτή, π.χ. ἡ ἀπόχρωση τοῦ κόκκινου βιβλίου). Τότε μόνον ἡ ἀτομικὴ ιδιότητα θὰ εἶναι ἀριθμητικὰ μία καὶ ὄχι —ἀπλῶς— ποιοτικὰ μία.

Παρ' ὅλον ὅτι ἡ ἐρμηνεία τοῦ Ackrill ἀντιπροσωπεύει τὴν ἀριστοτελικὴ σκέψη στὶς *Κατηγορίες*, τὸ σύστημα κατηγοριῶν ποὺ προκύπτει μὲ τὴν ἐρμηνεία αὐτὴ ἀντιμετωπίζει προβλήματα (π.χ. τὸ ὅτι ιδιότητες δέχονται ιδιότητες στὸν προσδιορισμὸ τους), τὰ ὁποῖα θὰ ἀποφευχθοῦν μόνο μὲ ἀναδιάρθρωση τοῦ ὅλου συστήματος.

Oxford

Θεόδωρος Σκαλτσᾶς