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LA THÈSE A ÉTÉ
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A PROPOSAL TO EXTEND THE METHODOLOGICAL
FUNCTION OF ARISTOTLE'S CATEGORIES

by Geoffrey Lusignan

Thesis presented to the School of Graduate
Studies and Research of the University of
Ottawa in partial fulfillment of the require-
ments for the Degree of Doctor of Philosophy.

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Dedicated, with love, to my Parents,
Mr. and Mrs. GENE LUSIGNAN.

INTRODUCTION

1. Preliminary Remarks:.

Aristotle's Categories is by no means as magnificent an achievement as his Metaphysics or his Nicomachean Ethics. In fact, when compared to the latter, the Categories looks very small and primitive and yet, in recent years, the little treatise has excited a level of passion and controversy far out of proportion to its size and presumed unimportance. This circumstance alone would be sufficient to justify a dissertation. It has, indeed, justified many dissertations, so I am faced with the necessity of explaining why I think that the world needs yet another dissertation on Aristotle's categories.

In brief, when I began reading the secondary literature on this topic, I suddenly found myself in a battle between ontology and logic for possession of the categories. The ontologists explained that the categories are the highest modes of 'being' and so belong to ontology. Not to be outdone, the logicians countered with the claim that the categories are the highest classes of logical predicates and so belong to logic. The question: What is the ultimate province of the categories, ontology or logic? became the starting point of my investigation.¹

As I studied the secondary literature more closely, I began to realize that the majority of commentators were trying to force the categories into one mould or the other. This did not seem to me to be legitimate, moreover, I came to suspect that the implicit question: Are the categories 'things' or 'predicates'? was a false one. However, neither side would yield to the other and since both could, to some degree, appeal

to the authority of Aristotle, there was no reason why they should. In the controversy that raged, Aristotle seemed trapped in an either/or situation. Joseph Owens put the current state of the question with great exactitude when he said:

"...the categories are presented in the Stagirite's Metaphysics as determinations of being and as ways in which being is expressed. Is the doctrine of categories for Aristotle, then, basically metaphysical with logical after-maths? Or, vice versa, is it fundamentally a logical growth that blossomed into a metaphysics? Or is it a loose combination of logical and metaphysical doctrines? Or is there an historical development and change in Aristotle from one viewpoint to another? Or does the doctrine of categories pertain to a twilight zone between logic and metaphysics?"²

It seemed to me that what was needed was a perspective from which to view the categories that would validate both of the perceived functions. In other words, was there some middle ground between ontology and logic, some particular perspective that would grant to both ontology and logic the perfect right to call themselves 'categorical systems'? The search for this perspective was the dominant motive behind the writing of this thesis.

Before I could take any steps towards a new look at the categories, my first move was to return to the source of the controversy, i.e. the treatise Categories. This is an odd little work that presents us with ten 'categories', but does not tell us categories of what in a manner that is obvious and unquestionable. In addition, it presents us with a theory of 'secondary substance' which is problematic in that it does not reappear in the rest of the Aristotelian corpus. This particular circumstance has given rise to doubts concerning the treatise's authenticity, and I believe that these problems are of sufficient importance to warrant an appendix.

2. The Objective of the Present Work.

First, it is not my purpose to give a line by line exegesis of the Categories. Such work is best left to those better fitted to undertake it. Further, I do not propose to devote a great deal of space to individual categories with the sole exception of substance. This category is of such importance that it will merit an entire chapter all to itself for reasons which I hope will be obvious. So with the exception of substance, my intention is to treat the categories as a set. I shall, moreover, not confine myself exclusively to the treatise in question. Aristotle has many interesting things to say about categories in other works, and representatives of these opinions will be duly noted.

Second, and most important, I wish to make it clear that I shall be only proposing an interpretation of the categories, and shall not, for an instant, pretend that the results of my research will be in any way final or definitive. In general, my objective will be to see whether the categories will lend themselves to an interpretation that may help to resolve certain existing problems. Basically, I think that if there were a definitive interpretation of the categories, then it would have surfaced long before now. My own interpretation will evolve as more and more texts come into play thus, my conclusion will be based more on a cumulative 'weight of evidence' than on one or two texts in particular.

In summary, then, this thesis will have as its objective an answer to the question: What is the primary function of the theory of categories insofar as it may be said to have any primary function? My own interest will not lie with ontology or logic exclusively, but with what I perceive to be the tie between them.

3. A Few Remarks on the Problem of Logic and Ontology in the Categories.

The debate over whether what are now called 'categories' in the Categories are 'logical entities', ontological entities, or in some sense both, is a long-standing one. Proponents of what I shall call the 'logical' interpretation hold, in general, that the categories, as presented in the treatise, are the highest classes of predicates that can be asserted or denied of a subject in a proposition. In Chapter II, we shall see why this view is questionable. The problem I wish to discuss now is the general one concerning the 'perspective' of the Categories. In other words, whether Aristotle places his emphasis on a discussion of ontological entities or whether he is more concerned with the terms that signify such entities.

In chapter two of the treatise, Aristotle sketches a four-fold ontological classification when he says: "Of things [τῶν ὄντων] there are: (a) some are said of a subject but are not in any subject... (b) Some are in a subject but are not said of any subject... (c) Some are both said of a subject and in a subject ... (d) Some are neither in a subject nor said of a subject."³ Basically, this list breaks down along the following lines: The four types of 'things' (ὄντων) are: 1) primary substance (οὐσία); 2) the species and genera of primary substance; 3) the individual non-substances; 4) the species and genera of these. In short, these are the kinds of 'things' that are.

In chapter two again, we have a discussion of 'things that are said' (τῶν λεγομένων),⁴ and Aristotle tells us that of these, "...some involve combination while others are said without combination."⁵ In his examples, Aristotle gives us statements of the barest subject-predicate kind, i.e. "... 'man runs', 'man wins'..."⁶ In chapter four, he says that: "Of things said without any combination, each signifies either substance

or quantity or qualification...".⁷ However, the 'things said without any combination' are not without referents, there are things which are signified by these uncombined terms. In my view, a correlation can be made between the 'signifiers' of chapter four and the fourfold division of entities in chapter two. In other words, that the entities in chapter two are precisely what the 'signifiers' of chapter four refer to. The correlation may be seen as follows:

Under the fourfold division of entities, we find primary substance and secondary substance, both of these may be referred to as οὐσία and δεύτερα οὐσία. The nine other 'signifiers' can be taken to refer to the things which are 'in' a subject but are not 'predicable of' it, i.e. the non-substantial individuals as well as their species and genera (quantity, quality and so on.)

The important definition of substance in chapter two as an entity which is neither 'predicable of' a subject nor 'in' a subject is the starting point for the discussion of substance in chapter five in which Aristotle says that substance "...most strictly, primarily, and most of all - is that which is neither said of a subject nor in a subject."⁸ That the general tone of the discussion is ontological is clear from the fact that Aristotle ties the existence of all other entities to that of primary substance. "Thus all the other things are either said of the primary substances as subjects or in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist."⁹ To this brief sketch, I shall only add that these and other related questions will be discussed more fully in Chapter II.

We may conclude generally that the Categories contains in chapter two the ontological entities which are signified by the list of signifiers in chapter four. On this basis, we may

say that the Categories deals with both 'ontology' and 'logic', but that ultimately the emphasis is on ontology because of the utter dependence of all other types of entity upon primary substance. The same point would also hold for the 'signifiers' since, without a concrete referent to give rise, through induction, to the concept which gives the 'signifier' its meaning, the 'signifier' would be empty of content and therefore meaningless.

4. The Structure of the Thesis.

If we adopt the view that Aristotle himself is rarely the source of the major problems treated in his philosophy, then it would appear to be prudent to begin a thesis on Aristotle with a chapter on Plato. In this chapter, it will by no means be my intention to write the history of Greek philosophy from Thales to Aristotle inclusive. Still less will it be my intention to do a comparative analysis of Plato and Aristotle. It will, however, be my intention to take formal note of the fact that Aristotle's early thought was shaped in a very particular environment under very particular influences. The basic reason for this chapter is inspired by Jaeger's assertion to the effect that Aristotle spent his entire post-Academy life trying to determine where he stood with respect to the doctrines that he learned there.¹⁰ The most important of these doctrines is the theory of Intelligible Forms, and we shall examine it in the light of the problems that Plato thought it would solve. With this theory, Plato attempted to ground the 'being' and 'intelligibility' of 'the real' in a supra-sensible world of eternal Forms. His theory of knowledge was, in the main, an attempt to show the relation of the Forms to the soul, that knowledge, properly so called, consisted of the recollec-

tion by the soul of what it had previously known in the world of the Forms. When Aristotle overturned the world of the Forms, he was forced to find another way to ground the 'being' and 'intelligibility' of 'the real', and this he did in part through the theory of categories in general, and substance in particular.

Further, I shall, in Chapter I, give a sketch of the epistemological, semantic, and metaphysical uses to which Plato apparently thought that the theory of Forms could be put. It is my hope that the reader will bear these in mind because they raise questions that Aristotle will have to answer when he denies the legitimacy of the Intelligible Forms. In other words, Aristotle will have to propose something that will ground not only the objective reality of the world but also the accuracy of our knowledge of it and the validity of our discourse.

The discussion of the Platonic theory of predication in Chapter I will lead us directly to Chapter II and a discussion of Aristotle's distinction between 'predication' and 'inherence' and of how these notions are unintelligible without substance. In Chapter III, we shall consider substance itself and the supreme importance it has in the Aristotelian system. But substance stands at the head of a categorial system, and Chapter IV will deal with those other categories as they form a set. Of additional interest in this chapter, we shall take a look at several major interpretations of the nature of the categories and attempt a provisional conclusion.

In Chapter V, I shall introduce the new perspective mentioned earlier, namely that the 'epistemological categories' mediate between the categories of ontology and logic and, in some sense, effect a 'translation' from the one to the other.

It will be my contention that the general theory of categories involves the identification of three commensurable categorial systems which provide the means for explaining how the 'being' and 'intelligibility' of 'the real' are grounded. In many ways, this drama will be played against the backdrop of the Platonic philosophy. For this reason, among others, I believe that there is a necessary minimum that has to be said about Plato at the outset if my later discussion of Aristotle is not to be based on a multitude of unstated presuppositions.

5. A Note on Methodology.

In general, this thesis will follow a technical methodology that appears to be fairly standard in work of this kind, although a few variations may be noted here. For example, most of the quotations from Plato and Aristotle will be in English translation. The primary reason for this is that I wish this thesis to be easily accessible to those readers who may have no Greek at all, and who have neither the time nor the patience to be referring constantly to translations. On several occasions, however, when it is particularly desirable to have the Greek original immediately at hand, it will be quoted directly, accompanied by a translation. Elsewhere, according to perceived interest, I shall include in a translated text the Greek original of certain terms. In these cases, the aim will be a greater clarity of comprehension of the intended meaning.

A further point on methodology has to do with the use of a particular term. In my discussion of Plato, I shall use the word 'soul', whereas with Aristotle, I shall employ the term ψυχή. The reason is simply that I think that in Plato's case, the word 'soul' is an accurate rendition of what he appears to mean by this term, one, moreover, which is tolerably close to

our modern understanding. In other words, in Plato, the soul may be seen as a type of spiritual being that brings life to the body it inhabits, that it is immortal, that it is of greater value than the body it operates through, and that the conduct of a man's life has a bearing on the soul's ultimate fate. In Aristotle, these notions are much less present. It seems true to say that what Aristotle understands by $\psi\upsilon\chi\eta$ is not quite what is understood by 'soul'. In this instance, I believe that consistent use of the Greek original will help to prevent the burdening of Aristotle's conception with meanings that are not truly appropriate to it. This point will be raised again later.

Again on the subject of methodology, I wish to indicate that the main translation of Aristotle's Categories that will be used in this thesis will be J. L. Ackrill's. This seems to be the best one now available, and it is certainly the text of choice for most recent commentators. For the other writings of Aristotle, I shall rely on the book edited by Richard McKeon, The Basic Works of Aristotle.¹¹ The advantage here is that it is based on the standard English translations found in the Oxford edition. I shall, of course, turn to the latter for sources not contained in McKeon. The rule is, then, that quotations from Aristotle will be taken either from Ackrill or from the standard Oxford translations. Any exceptions to this rule will be properly documented.

One final point. In several chapters, the reader will find footnotes integrated into the text which are designated by lower case letters of the Greek alphabet rather than by Arabic numerals. These additions represent later revisions to the text.

NOTES TO INTRODUCTION

1. By 'ontology' I mean the science that is also called 'metaphysics' or what Aristotle called 'First Philosophy' (cf. De Caelo, I, 8, 277b10). This is a complex notion involving a variety of different aspects, two of which are of particular relevance here. One is that ontology, or metaphysics is the science of 'being qua being' (cf. Meta., Γ, 1, 1003a21-32). In the first chapter of Metaphysics, Γ, Aristotle distinguishes 'first philosophy' from the so-called special sciences in that "...none of these others treats universally of being as being. They cut off a part of being and investigate the attribute of this part; this is what the mathematical sciences for instance do." (Ibid., 1003a24-26). In chapter two of the same book, Aristotle says that just as everything called medical is related to the medical art, so everything that is said to 'be' is referred to substance (ibid., 1003b1-8). For Aristotle, the highest manifestation of 'being' is substance. "For who understands 'being itself' to be anything but a particular substance?" (Phys., I, 3, 187a9). In fact, "...the question which was raised of old and is raised now and always ...viz. what being is, is just the question, what is substance?" (Meta., Z, 1, 1028b2-4). The second aspect of ontology or metaphysics is that it is generally considered to study those concepts which are too general to fall under the purview of any one of the 'special sciences' (e.g., matter and form, causality, act and potency, and so on). I am fully prepared to concede that 'ontology' is not an Aristotelian term, but then neither is 'metaphysics'.

In contrast to 'ontology', I place 'logic'. If ontology refers to the study of 'being' as it is manifested in the independent existent and its attributes, then the ontological domain covers those entities that, in the perspective of the Categories, are signified by uncombined terms. Logic would refer, then, to the study of significant terms whether combined or uncombined. As we shall see, whenever I discuss the 'ontological function' of the categories, what I mean is the role of the categories in the constitution of the primary substance which, as the basic ontological unit, is the highest manifestation of 'being'. (In this context, I prefer the term 'ontology' to 'metaphysics' because ontology immediately implies the notion of ὄν). When, however, I discuss the logical function of the categories, I mean the role of the categories as the signifiers of what is signified. In this connection, see note α, p. 83.

2. J. Owens, "Aristotle on Categories," The Review of Metaphysics, 14(1960), pp. 79-80.
3. Cat., 2, 1a20-b3.
4. Ibid., 1a16.
5. Ibid.
6. Ibid., 1a18.
7. Ibid., 4, 1b25-26.
8. Ibid., 5, 2a11-13.
9. Ibid., 2b3-7.
10. "He had accepted Plato's doctrines with his whole soul, and the effort to discover his own relation to them occupied his entire life, and is the clue to his development." W. Jaeger, Aristotle: Fundamentals of the History of His Development, (R. Robinson, trans.), (London: Oxford University Press, 1967), p. 13₇.
11. See bibliography for full information on Ackrill and McKeon.

CHAPTER I

PLATONIC ANTECEDENTS TO THE ARISTOTELIAN THEORY OF PREDICATION

1. The Background to the Theory of Intelligible Forms.

It is an old truism that nothing comes from nothing. Ideas, philosophical or otherwise, do not spring from a vacuum; and while one is always prepared to condemn the triviality of proverbial wisdom, one risks losing sight of the basic truth of the statement that made it a proverb in the first place. It is the stated aim of this dissertation to investigate the Aristotelian categories, and one important feature of that theory is the role of the notion of predication. Clearly, Aristotle was not the first to conceive of a theory of predication, he had antecedents. The most notable of these was Plato. But Plato had predecessors also, and while I shall do all in my power to avoid an infinite regression, I shall take the view that what Aristotle says about predication is highly coloured by his reaction against Plato. It is in this context that some notice of Plato's predecessors will be taken. In the course of this particular discussion, it is to be hoped that the originality of Plato's solutions to the problems raised by his philosophical forebears will become apparent.

In the 170 years (approximately) between the birth of Thales, commonly regarded as the first Greek philosopher, and that of Socrates who revolutionized not only the content and the method, but also the direction of Greek philosophy, many

important changes had taken place in the Greek mind. The early philosophers, Thales, Anaximander, Anaximenes, Empedocles and Anaxagoras had each, in their several ways, attempted to explain the nature of the physical world. For the most part, they were materialists, whether monists or pluralists, tying their explanations of coming-to-be, passing away and change generally to one or more principles which could be easily discovered in the world of sense experience. Their attempts to reduce the world to a unit or plurality of matter strikes us moderns as crude and unsophisticated, and we can only speculate on how their explanations were received by their contemporaries. But however primitive their efforts now appear, the fact is that these men represent the beginnings of the philosophical enterprise in the West.

What followed the Ionian cosmologists was undoubtedly more interesting if not more dangerous. There can be little doubt that the leisured and learned circles of Greece viewed with bemusement the struggle for the hearts and minds of philosophers that took place between the disciples of Parmenides and those of Heraclitus; the one side arguing that change is an illusion, and the other asserting that nothing abides, that all is change. Any non-philosopher present at such a debate would have been treated to the unedifying spectacle of intelligent men ably defending their own positions in diametrical opposition to the others. The casual observer must have felt that in the end it was impossible to know the truth about anything. Given all of the various contradictory opinions that were current at any one time, it is amazing, in retrospect, that Scepticism made its appearance in Greek philosophy as late as it did. The dilemma raised by the antagonistic nature of philosophy at that time was one to which Aristotle was not

insensitive:

"...if those who have been most keen in the pursuit of whatever truth is possible for us, if they who seek and love it most, hold such opinions and make such pronouncements about truth, how can ~~the~~ beginner in philosophy fail to lose heart?"¹

Following Parmenides and Heraclitus, it seems clear that natural philosophy had reached an impasse. The general faith in the unity and stability of the universe had been severely undermined, and if this is taken with mounting scepticism about traditional religious explanations, absence of faith in authority (whether human or divine) and a certain cynicism with respect to received opinions, then the stage is set for the growth of an intellectual and moral vacuum. However, the conditions just enumerated may not have been entirely without merit to the extent that they encouraged philosophers to turn away from the world, which seemed to defy coherent explanation, and towards man himself who offered new fields for exploration. Enter the Sophists.

In its essence, the Sophistic movement seems to have been a highly ingenious endeavor to hold two conflicting views: the empiricism of Hippocrates, and the flux theory of Heraclitus. In other words, our sole source of information about the world is the senses, but the world revealed to the senses is changing, confused and unknowable. The Sophists appear generally to have accepted the notion that man is the measure of all things,² a view which implies that truth is relative to the individual so that there may be no way of determining that may be objectively true about a thing or state of affairs. It may also be the case that there are not even any facts to know the truth about.

"The Sophists were the children of their age....All alike took their stand on the

complete absence of absolute values and standards, whether based on theological considerations or not. All human action was regarded by the Sophists as based on experience alone and dictated by nothing but expediency. Right and wrong, wisdom, justice and goodness, were nothing but names, even though it was sometimes prudent to act as if they were more."³

We have, as our prime sources of information about the Sophists, the accounts of Plato and Aristotle, which are hostile in the extreme; and despite another recent attempt by G. B. Kerferd⁴ to rehabilitate them, the prevailing view is that, apart from fostering an interest in man, the general Sophistic legacy is not Philosophy's finest hour. If the testimony of the Platonic writings is to be accepted, then internal evidence points consistently to the fact that Plato found the Sophistic teachings intolerable, and that his life-long philosophical activity was directed towards a search for knowledge that was not prey to relativism and subjectivism but that was, on the contrary, definite and reliable. Enter Socrates.

It is ironic that, at first glance, Socrates had much in common with the Sophists he despised:

"...first a critical attitude towards anything that seemed to be founded merely on tradition; further the chief object of his thought - man as a knowing, active, social being; thirdly that in his philosophic reflections he always started from experience. But he could not remain content with the subjectivity and relativity of the sophists. Behind morals he sought morality, behind prevailing law justice, in the history of existing states fixed principles for the communal life of man and behind the gods divinity."⁵

According to W. K. C. Guthrie,

"...the action of Socrates was based on a passionate belief that knowledge was possible,

but that the debris of half-thought-out and misleading ideas which filled most men's minds must be cleared away before the search for it could begin. What he set before men, in strong opposition to sophistic scepticism, was 'an ideal of knowledge unattained'"⁶

Socrates' apparent conviction that there was something permanent and knowable behind the world of appearance which a dialectical search for definitions could help uncover offered Plato a way of escape from the relativism of the Heracliteans and the Sophists. But if there is something permanent and knowable behind the fleeting appearances of the world of sensation, then how is it to be grasped? The answer is through inductive arguments leading to general definitions, and Aristotle credits Socrates with both.⁷

"The first stage is to collect instances to which it is agreed by both fellow-seekers that the name 'justice' (if justice is the quarry) can be applied. Then the collected examples of just actions are examined to discover in them some common quality by virtue of which they bear that name. This common quality, or more likely a group or nexus of common qualities, constitutes their essence as just acts. It is in fact, abstracted from the accidental properties of time and circumstance which belong to just acts individually, the definition of justice. Thus the inductive argument is, as its Greek name *ἑπαγωγή* signifies, a 'leading on' of the mind from individual instances, assembled and regarded collectively, to a comprehension of their common definition."⁸

This 'Socratic' contribution had a profound influence on Plato's theory of Intelligible Forms. It is, however, a matter of some dispute among scholars as to where Socrates leaves off and Plato begins. A commonly accepted dividing line is the point at which Plato begins to argue for the separateness of

the Intelligible Forms. According to Aristotle, "...Socrates did not make the universals or the definitions exist apart..."⁹ Aristotle goes on immediately to add that it was 'other philosophers' who separated the definitions and gave them the name 'Ideas'.¹⁰ To give only one example, this notion of the separateness of the Idea makes an appearance in an early dialogue, the Euthyphro. Here the Socrates of the dialogue asks:

"Is not the holy always one and the same thing in every action, and again, is not the unholy always opposite to the holy and like itself? And as unholiness does it not always have its one essential form ἁγία, which will be found in everything that is unholy?"¹¹

With respect to the theory of Intelligible Forms, there is at least one basic and major difference between Socrates and Plato. We have the testimony of Aristotle that Socrates arrived at his particular conception of Forms through induction; that he began with sense experience and attempted to reason his way to universal definitions, and that his primary motivation was to uncover something fixed that could be treated as an object of knowledge. Socrates was passionately concerned with attacking the relativism and scepticism that he found in his contemporaries not only on what we would call the epistemological level, but especially on the moral level. Aristotle has also told us that Socrates did not separate the definition from that which it defined. It seems that the chief characteristic of Plato's departure from his master is that he did effect such a separation. It is this crucial aspect of Platonism that I now wish to discuss under following heading.

2. The Forms, the Soul, and 'Ανάμνησις

Plato was one of the least systematic of philosophers, and I am well aware, as A. H. Armstrong says, that "To present the doctrines contained in [the] writings of Plato systematically is almost to do violence to his thought."¹² Unfortunately, what I hope to establish in these few pages requires a systematic approach if we are to be able to extract those essential features of Platonism which will render our later discussion of Aristotle more intelligible.

Of importance in this regard is Plato's doctrine of ψυχή. One of the earliest and most influential of Plato's accounts of the soul occurs in the Phaedo. This dialogue espouses a sharply dualistic view of body and soul. These primordial aspects of man are seen to be alien to one another, to have been forced into an unwilling association which works very much to the soul's disadvantage. The primary consideration seems to be epistemological:

"We are in fact convinced that if we are ever to have pure knowledge of anything, we must get rid of the body and contemplate things by themselves [i.e. the Intelligible Forms] with the soul by itself If no pure knowledge is possible in the company of the body, then either it is totally impossible to acquire knowledge, or it is only possible after death, because it is only then that the soul will be separate and independent of the body."¹³

As is clear from the above quotation, the only objects of knowledge are the Intelligible Forms (which are not discernible through the senses) and which can only be apprehended by the soul insofar as it thinks independently of the body. It is part of the intellectualist position argued for in the Phaedo

that the soul is seen as the thinking rational self, while the body contributes nothing to their unhappy union but the baser passions, pleasures and sensations. Thus, the dualism described in the Phaedo is of soul and body. The soul qua soul appears to be a unity. However, by the time Plato reaches Book IV of the Republic, he introduces a new element into the theory of soul. In this section, he is concerned with a tripartite soul divided into $\nu\omicron\upsilon\varsigma$ ('intellect'), $\theta\upsilon\mu\acute{o}\varsigma$ ('passion'), and $\epsilon\pi\iota\theta\upsilon\mu\acute{\iota}\alpha$ ('appetite'). If we recall the basic concern of the Republic, it is not difficult to suggest why Plato would want to expand his theory of soul. In this extended dialogue, Plato's quest for justice is predicated on the assumption that the state is man writ large, and that if the state is to be divided into three classes (guardians, soldiers, and artisans), and that this division flows from the powers and functions discerned in the individual, then these powers (the rational, the spirited and the appetitive) must have their seat in the soul, and what could be more logical, from Plato's point of view, than to try to make the three classes of the state model themselves after the three parts of the soul? But the tripartite conception of the soul does not remain fixed, even in the Republic. By Book X, Plato is once more preoccupied with the question of the soul's immortality, and he returns to his earlier speculation about the unity of the soul in which we discern doctrinal echoes of the Phaedo. In any event, whether Plato thought of the soul as simple or tripartite is a question outside the ambit of this dissertation and we shall abandon any further speculation. To return to Book IV, as if further justification for the theory of the tripartite soul were required, Plato points to the fact of internal conflict.¹⁴ In order not to ascribe conflicting desires to the same faculty at the same time and with respect to the same object, Plato posits a soul with different parts. For

example, when a man is angry with himself for desiring something base, Plato reasons that the disagreement has its root in two parts of the soul, the spirited in conflict with the appetitive.

But to return once again to the Phaedo, what is of interest to us is not just the doctrine of the unity of the soul, but also Plato's fundamental insistence that the soul is not only immortal, but that it existed prior to its incarnation.

"Suppose that when you see something you say to yourself, This thing which I can see has a tendency to be like something else, but it falls short and cannot be really like it, only a poor imitation. Don't you agree with me that anyone who receives the impression must in fact have previous knowledge of that thing which he says that the other resembles, but inadequately?"¹⁵

What makes this theory so attractive to Plato is that it permits him to assert that what we think of as the acquisition of knowledge is nothing other than recollection of the 'True Realities' which were once directly present to the soul in the world of Intelligible Forms. This particular thesis casts an interesting light on the word 'education', especially if we see it as derived from the Latin ex ('out' or 'from'), and duco ('I lead'). Education then becomes a 'leading out' from what is already 'there'.

We have already seen that the mind-body dualism in the Phaedo is modified, however temporarily, in the Republic. However, this modification does not solve Plato's central problem of the conflict between desires and reason. In the Phaedo, the passionate and appetitive parts of man's nature are blamed on the body, whereas the soul is simple in essence, rational and immortal. In Republic IV, Plato seems to have forgotten the

body altogether, and although the same conflict between desire and reason remains, the venue has been internalized. In other words, the conflict is now between the rational part of the soul and the spirited and appetitive parts of the soul. Thus, the division is no longer strictly between body and soul, the division which occurs following the soul's descent from the world of Intelligible Forms and its incarnation in a body, is now located within the soul itself. At the same time, Plato was faced with the necessity of finding a way to reconcile these divisions. He makes an attempt in Republic IX.

"...may we not confidently declare that in both the gain-loving and contentious part of our nature all the desires that wait upon knowledge and reason, and, pursuing their pleasures in conjunction with them, take only those pleasures which reason approves..."¹⁶

The true philosopher is one in whom the rule of reason is established, and in this desirable state, the two lower parts of the soul recognize that their function, and indeed their good, can only be procured by following the dictates of the rational element. This doctrine appears also in the Phaedrus¹⁷ and in the Timaeus.¹⁸

Prior to its incarnation, the soul had direct acquaintance with, and knowledge of, the Intelligible Forms. The Forms disclose themselves not to the physical organs of sight, but to the 'eye of the soul', they are apprehended by reason only. The knowledge lost when the soul enters the body can be at least partially recovered by dialectic.

"...what Plato is trying to do with his dialectical method is to study the complex structure of a world of concrete spiritual realities, the world of Forms, and by so studying its structure to arrive at the exact definition of the Form he wants (e.g., the Form of "geometrical figure" or "statesman") and its

relationship to other Forms. This he does by the method of Collection and Division. By Collection the mind, by an upward movement of intuitional leaps...gathers together under one Form sufficiently universal to be the starting point of the investigation in hand the number of scattered and apparently disconnected less universal Forms from which it starts. Then by dividing and subdividing this more universal form [sic], by finding, so to speak, the joints in its structure, the mind arrives at a clear conception of the order and relationship of the less universal Forms included under it, one of which is the Form of which the exact definition is required."¹⁹

Learning, for Plato, is a process whereby the Intelligible Forms, however imperfectly presented by the objects of sense, cause in the soul stirrings of recollection. Once the soul is launched on the trail of discovery of the Forms themselves, it no longer has need of empirical data. Plato's soul moves forward with sufficient faith in the existence of the Forms, confident that the dialectical method will make them known to the extent that our impure natures can grasp them.

"It seemed quite clear to Plato that knowledge of the kind that Socrates sought, knowledge of the meaning of moral terms such as 'goodness' or 'virtue', could never be accounted for by the apparatus of the empirical theory of knowledge. Goodness cannot be perceived by any sense, and a definition of it cannot be distilled out of colours, sounds, and so on, stored in the record of our personal experience. The Meno, moreover, contains evidence of a newly awakened interest in mathematics, the only abstract science then existing which had developed a systematic logical procedure for the discovery of new truths.... Plato came to recognize that mathematical objects are not the concrete things around us, but objects of thought known by the mind when, as the Phaedo says, it withdraws from

the senses to think 'by itself'. Arithmetic and geometry consist of a system of truths which do not even hold good of the visible and tangible things of sense, and which cannot be proved by reference to such things. They belong to a supersensible world, accessible to our intelligence, but not to the organs of sight or touch or hearing."²⁰

In addition to all of the other influences operating on his philosophy, Plato also has a strong Pythagorean streak, and it emerges most clearly in his treatment of mathematics. Mathematics, for Plato, is knowable in the highest sense, unlike the world of appearances. Mathematical objects

"...are perfect and exact, having neither more nor less content than is expressed in their definitions. They are exempt from time and change: nothing that is true about the sphere or the triangle can ever cease to be true at some other time because the object has changed in the interval. Finally, the knowledge we have of their properties can 'give an account' of itself; the properties are deduced by a rigid chain of reasoning, such that anyone who has understood the premisses must see the certainty of the conclusions. The name of knowledge cannot be refused to such a system of eternal objects and necessary truths.

Further, if these objects can be known, they must surely be real; for 'the perfectly real' must be identical with 'the perfectly knowable' [Republic V, 477A]. The power of thought has broken through the surface of fleeting appearances and disclosed beyond it an objective 'nature of things' of a quite different order from the material elements or atoms of the physicists."²¹

Plato believed that he had established a world of eternal and objective truths which do not disclose themselves to the senses, confused by the panorama of the world's constant change,

but instead are revealed directly to the eye of the soul. In other words, the pure and eternal objects of thought can only be uncovered by thought itself, withdrawing from the world and from the senses, holding a silent dialogue with itself in isolation from the tangled and contradictory world of sensation. The soul, as the seat of thought or of the power of intellection, is what allows Plato to bridge the gap between the world of Intelligible Forms and the world of empirical illusions.

"It is...quite impossible for Plato to believe that the soul acquires any sort of knowledge of the Forms through its bodily senses. There is nothing in this world of transient individual appearances which can tell us of the existence of that other of unchanging universal truths. Yet the soul appears to learn truths when it is in the body, and to learn them with the help of the senses. How does it do it? Plato's solution is the famous doctrine of Anamnesis or Recollection.

This is simply that the soul has known the Forms in its divine existence before incarnation in a body, and is "reminded" of them by perceiving through the senses those particular things in this world which "participate" in them. So it comes, apparently but only apparently through sense knowledge, to know universal truths and their properties and relationships which have nothing to do with the world of the senses. The part played by the body and the senses in true knowledge is thus entirely subordinate and incidental. Knowledge of reality is an encounter of the Forms and the soul taking place in a world transcending the material to which they both belong."²²

Ultimately, Plato makes a distinction between sense objects and objects of intellectual cognition, the former give rise to opinion and the latter to knowledge. He accepts the Heraclitean position that the physical world is in continuous flux and that in consequence, no stable objects are provided

for sensory cognition. No doubt Plato had been prepared for this somewhat depressing conclusion by the failure of the Ionian cosmologists to account with sufficient clarity for the nature of the physical world. But, however reluctant Plato might have been to write-off the world of sense as a source of knowledge, he was unable to follow Heraclitus to the awful extreme of declaring that because no knowledge of the natural world was possible, then no knowledge at all was possible. His problem was how to agree with Heraclitus and yet hold out hope for the establishment of true and certain knowledge.

In this context, Socrates emerges as Plato's saviour. Socrates taught that we do know the objects of mathematics, and we do know about moral ideals. And since we cannot claim any sensory ground for these facts, we must therefore postulate that they have a non-sensory origin. By reflecting on the work of his predecessors, Plato must have felt that he had acquired an adequate theoretical framework to enable him to overcome the contradictions inherent in their attempts to explain the world. In the construction of his great synthesis of pre-Socratic philosophy, Plato agreed with Heraclitus about the world of sense, and so sought to ground knowledge in a supra-sensible, eternal and changeless world, no doubt suggested by Parmenides' description of Being.

"Parmenides' influence on Plato's Forms is unmistakable. The Forms are a plurality of Eleatic monads, and Plato takes a highly original place among those philosophers who both accept Parmenides' account of what it is to be, and yet try to save the visible phenomena from non-existence."²³

At this point, Plato has grounds for believing that the physical world discloses itself only to the senses, and that the senses do not provide true knowledge. But, this is not to

say that true knowledge is impossible, especially if one subscribes to the position that there is a transcendent world of Forms with the concomitant adjective 'Intelligible'. If the Forms are intelligible then they are, by definition, accessible to reason. But, Plato must now explain how a man trapped in a material body and surrounded by a material world which he cannot know can, at the same time, have knowledge of a transcendent world containing pure and stable objects in the highest degree intelligible.²⁴

If one postulates that the soul, in itself rational, simple and immortal, had had an existence in the world of Intelligible Forms prior to its incarnation, then one could argue that the knowledge acquired by the soul from its direct acquaintance with the supremely intelligible objects was lost in its contact with the body. But the saving feature of the theory is that the loss is not irrecoverable. Since the theory holds that the soul had a direct contact with the Intelligible Forms, and that the world of sense was modelled, however imperfectly, after the eternal archetypes, then the world of sense can provide an opportunity for the soul to remember what it had previously known, to distinguish in the world of sense objects however adulterated, the vague images of the Forms that were their patterns.

Thus knowledge is not acquired by sensation, but by a process of ascending dialectic in the realm of pure thought wherein the Intelligible Forms are uncovered by the inner eye of the reflective mind. This theory, of course, hangs on the belief that the soul is immortal and once had a prior existence in the other world. Knowledge then, is more properly called ἀνάμνησις.²⁵ Plato expressly defends this view in the Meno,²⁶ the Phaedo,²⁷ and the Phaedrus.²⁸ One of the aspects of this theory that Aristotle would find problematic is the separation that Plato

insists on maintaining between the world of flux and the world of Forms²⁹ with its attendant hypothesis that knowledge of the Forms can only be suggested by the temporary approximations to them that are manifested in the world of sense objects.

Through all of the theories and conceptual experiments that comprise what we call the Platonic system, there was one belief that Plato never abandoned, namely his faith in the primacy of reason. And in addition to this, an unshakable conviction that, the world of sense aside, true knowledge was possible, "...not the knowledge that is neighbor to becoming and varies with the various objects to which we commonly ascribe being, but the veritable knowledge of being that veritably is."³⁰

3. The Uses of the Forms.

Before undertaking a discussion of the major uses which Plato found for his theory of Intelligible Forms, I wish to introduce a word of caution. Each of the three headings to be discussed is worthy of a dissertation in itself and not of the cursory treatment it will perforce be accorded in the present context. It is as obvious as it is unfortunate that I cannot devote more space to a discussion of these matters, but they, in themselves, are not the object of my study. I do not intend, moreover, that this thesis should assume the dimensions of a comparative study of Plato and Aristotle on the subjects of epistemology, semantics, and metaphysics, for such an undertaking would be more appropriate to a life's work than to a doctoral dissertation.

However, these considerations do not absolve me of the necessity of taking some notice, however minimal and question-begging, of what Plato thought the uses of the theory of Forms could be. In justification of my small efforts, I plead the

defense that the theory of Intelligible Forms is the cornerstone of Plato's philosophy, and it is the most important single factor in the intellectual break between Plato and his great pupil. In Aristotle's system other constructs will replace the Forms, and other answers will be sought for problems epistemological, semantic and metaphysical, and the point of Aristotle's new theories in these areas will be severely mitigated if no mention is made here of the role that Plato thought that the Forms could play in his own explanation of knowledge, language and the world.

"Philosophically, the most important questions about the origin of the theory of Forms concern the philosophical problems that gave rise to it, and how it is supposed to help solve them."³¹

In the two preceding sections, I have discussed some of the more important background elements which could pass as 'origins' of Plato's theory of Intelligible Forms. What now remain to be seen are the major problem areas which serve as venues for the operation of the theory. Generally, when philosophers take the trouble to elaborate a conceptual framework they have, in their own minds at least, compelling reasons for doing so. Plato's predecessors had created problems for him in three main areas which we would now call the epistemological, the semantic and the metaphysical.³² Taking each of these in turn, I shall indicate the ways in which Plato appears to have believed that the theory of Forms could be used to resolve the more intractable difficulties, which is not to say, however, that his solutions were without their own problems.

a) Epistemology.

The particular formulation of the question: "Is knowledge knowable? If not, how do we know this?"³³ does not occur in Plato's writings. What we do find there, however, are indications that, from the early Ionian cosmologists in general, and from Heraclitus in particular, Plato inherited the belief that the world of sensory cognition is an unfit subject for knowledge. But Heraclitus did not confine his rejection of the possibility of knowledge to the physical world alone, rather he denied that man could have any stable cognition of anything. Plato offers the following interpretation of the Heraclitean problem along with a hint as to its solution:

"...[w]e cannot reasonably say...that there is knowledge at all, if everything is in a state of transition and there is nothing abiding. For knowledge too cannot continue to be knowledge unless continuing always to abide and exist. But if the very nature of knowledge changes, at the time when the change occurs there will be no knowledge, and, according to this view, there will be no one to know and nothing to be known. But if that which knows and that which is known exist ever, and the beautiful and the good and every other thing also exist, then I do not think that they can resemble a process or flux....Whether there is this eternal nature in things, or whether the truth is what Heraclitus and his followers and many others say, is a question hard to determine..."³⁴

By the time the views of Heraclitus had reached the Sophists, they were warmly embraced, and became a partial justification for their belief that all that we call knowledge is relative to the knowing subject. Whether this alleged know-

ledge be of the natural world or of moral ideals, it depends for its veracity not upon any defensible objective standard, but upon the transient physical and mental states of the knowing subject. For the Sophists, what is important is not objective knowledge, since this is impossible, but belief, specifically what one could induce others to believe. Plato, particularly in the Theaetetus, reserves much of his scorn for the Protagorean view that man is the measure of all things, and that truth or falsity depend upon a given person's perceptions at any given time.

"If what every man believes as a result of perception is indeed to be true for him; if, just as no one is to be a better judge of what another experiences, so no one is better entitled to consider whether what another thinks is true or false, and, as we have said more than once, every man is to have his own beliefs for himself alone and they are all right and true - then, my friend, where is the wisdom of Protagoras, to justify his setting up to teach others and to be handsomely paid for it, and where is our comparative ignorance or the need for us to go and sit at his feet, when each of us is himself the measure of his own wisdom? ...for to set about overhauling and testing one another's notions and opinions when those of each and every one are right, is a tedious and monstrous display of folly, if the Truth of Protagoras is really truthful and not amusing herself with oracles delivered from the unapproachable shrine of his book."³⁵

We have already seen that, in principle, Plato accepts Heraclitus' conclusion that information about the physical world acquired through the organs of sensation has no claim to be called knowledge. We have also seen, however, that Plato is unprepared to admit that some other kind of knowledge

is thereby rendered equally impossible. What Plato must do is to find a way to make stable knowledge possible, all the while genuflecting in the direction of Heraclitus. Enter the theory of Intelligible Forms.

To take an example already cited³⁶ and discussed at length in that consummate dialogue, the Republic, namely that of justice, how can Plato's theory of Forms help us to determine which acts are just, and which are unjust? In other words, how can we know, or at least have good reasons for believing, that an act is just? Plato's procedure would be to undertake a dialectical inquiry into the nature of Justice itself. But, as the Socrates of the Meno says: "...how can I know a property of something when I don't even know what it is?"³⁷ Or, to put the question another way, how can we know if (or that) discretion is the better part of valor³⁸ if we don't know what valor is? Finding out 'what it is' is a paramount consideration in any inquiry of this kind. Part of the difficulty is to uncover which words (or names) may be properly applied to which cases. And a useful preliminary would be to establish what the words mean. It should be remembered that Plato did agree with the Sophists on at least one point, namely, he shared their distrust of hearsay, and he refused to accept anything simply because it was generally believed.³⁹ Now, given this, how are we going to find out what words mean? We are barred from enlightenment at the hands of the mob. We are discouraged from consulting dictionaries since these are primary sources of the mob's information, and it wouldn't do much good to apply to the compiler of the dictionary since he, being a man (however learned), is prey to the same conceits of false knowledge as la foule. All of this is very discouraging, and our inquiry threatens to run off the rails before it even gets started. There must be some other way.

Plato believed that there was, and it is in this context that his theory of judgment assumes importance. I shall discuss this theory later in connection with Plato's views on predication, so for the moment, I shall only observe that Plato found that the dilemma posed by the relationship between names and what they signify involves the following considerations. If we accept, as Plato seems to have done,⁴⁰ that there is a natural fitness between the name and what it names, and secondly that names have correlates in the physical world, then what remains is to establish, by means of a theory of judgment, a proper procedure for asserting something of something else.

To return to our original problem, that of knowing whether a thing or state of affairs is rightly called so-and-so, the difficulty lies in knowing which words may be properly applied to which cases. The need for such a determination is obvious, for when Plato addresses such questions as: 'can virtue be taught?',⁴¹ or, 'what is a just act?', it seems clear that these questions cannot be answered unless we know what virtue and justice are. Only when this has been determined will we be able to say whether a certain act is just. It will certainly not be so simply because someone says that it is. We must, then, be suspicious of words in their everyday uses, since the cases to which the word (in this instance 'justice') refers are not always clear-cut.

If we recall the passage from the Euthyphro cited above,⁴² especially the part in which Plato speaks of unholiness always having its one essential form which will be found in everything that is unholy, we have an indication that we should look to the Form in order to test the rightness of a definition. By the initial use of a definition, we are directed to the Form, and following due contemplation, we are led to see whether the

Form is really the paradigm of this definition. If it is not, we shall at least be able to see in what way the definition falls short of the ideal.

I believe that Plato's fundamental intention in applying the Intelligible Forms to epistemological problems is to establish reasonable grounds for knowing or believing what something or state of affairs is. If we know what Form is operative in the thing to be known, then we can fairly claim to know that the thing is an instantiation of that Form. To continue with the example of justice, if we know what Justice qua Form is, then when asked about a particular case the justice of which is in dispute, we can apply our knowledge of the Form to the particular instance in order to determine if the particular case exhibits those features which would be expected of any instance in which the Form of Justice is operative.

b) Semantics.

The question: 'is virtue teachable?' has more dimensions to it than the 'merely' epistemological. Concepts and ideas are not transmitted directly from one mind to another, so for any kind of transference to be possible at all, there must be language. By contemporary standards, the Greek approach to language may seem unscientific, but they must at least be credited with perceiving its importance as the vehicle for the dissemination of ideas and information, and for raising, in their own cultural milieu, questions about its relationship with the world it attempts to circumscribe.⁴³

Plato was not a grammarian by profession, and he no doubt looked askance at the verbal gymnastics of the Sophists which he satirizes in the Euthydemus, but it is probably also true that the trickery of the Sophists awakened him to the need for

determining the role which language played in his own philosophy. Plato was not a linguist, either, in any modern sense; in fact he, as well as Aristotle, confined his investigations into language to what we might call the philosophical level i.e. to the rapport between thought and reality.

By Plato's time, the language controversy had reached a stage where three major theories were current and the question was whether language was the product of $\theta\acute{\epsilon}\sigma\iota\varsigma$ ('convention'), $\nu\acute{o}\mu\omicron\varsigma$ ('order'), or $\phi\acute{\upsilon}\sigma\iota\varsigma$ ('nature'). Plato seems to think that in the beginning, names had a natural fitness for what they named:

"Cratylus is right in saying that things have names by nature, and that not every man is an artificer of names, but he only who looks to the name which each thing by nature has, and is able to express the true forms of things in letters and syllables."⁴⁴

This is possibly an echo of the view expressed in the Euthyphro that one is to look to the Form to determine the 'whatness' of a thing or state of affairs.⁴⁵ A few lines further, the Socrates of the Cratylus says that "...names have by nature a truth."⁴⁶ Although, by the end of the dialogue, Plato might just as well have said that names had by nature a truth because "...the original forms of words may have been lost in the lapse of ages; names have been so twisted in all manner of ways that I should not be surprised if the old language when compared with that now in use would appear to be a barbarous tongue."⁴⁷ In other words, the original legislator, or giver of names, may have named things directly from the Forms which gave them their being and their intelligibility, but the intervening centuries or millennia had caused the names to be corrupted in daily usage so that even if the names had a natural origin, there is little

doubt that their present status is derived from convention.⁴⁸ There is, in fact, an interesting parallel between the doctrines of the Cratylus and those of the Timaeus. In the latter dialogue, the Demiurge makes the things of the world after the eternal patterns (Forms) whereas in the former, the 'legislator' names things after the eternal paradigms. As Plato says:

"...it is all-important that the beginning of everything should be according to nature. And in speaking of the copy and the original we may assume that words are akin to the matter which they describe; when they relate to the lasting and permanent and intelligible, they ought to be lasting and unalterable, and, as far as their nature allows, irrefutable and invincible - nothing less. But when they express only the copy or likeness and not the eternal things themselves, they need only be likely and analogous to the former words."⁴⁹

As noted above, Plato is guided in his investigation by the belief that, at least in an ideal language, there is a fitness connecting the name and the thing it stands for, and that there is something inherently 'right' about the relationship. Plato seems to think that the method of etymologizing to determine the fitness of the relationship between the linguistic sign and the thing signified is the best method of achieving results.⁵⁰ In justification of his somewhat bizarre etymological investigations, the Socrates of the dialogue says:

"...the ancients formed language, and what they put together we must take to pieces in like manner, if we are to attain a scientific view of the whole subject."⁵¹ Now, if it is not generally agreed, then it ought to be, that the method of etymologizing, as used in the Cratylus, is not very scientific. In fact, had the mature Aristotle been present, he might have cautioned his master that any confusion between the form and the content of the linguistic sign must inevitably lead if not

to weak linguistics, then at least to bad metaphysics.

By Plato's own standards, the basic idea that names, in their original purity, were derived from the Forms they named was a good one. As noted earlier, this thesis is consistent with what Plato holds in the Timaeus, and further, it is to be observed that the theory has a built-in explanation for how words became corrupted over the centuries and passed from being 'natural' to being 'conventional'. The point appears to be that as the Demiurge fashioned the physical world with his eye fixed firmly on the unchanging and eternal paradigms, the lapse of millenia saw an increasing attenuation of the relationship between the Forms and the things copied from them, until the Forms were barely discernible in the things that were alleged to be their likenesses. All of which goes to support Plato's contention that stable knowledge based on the Forms can no longer be found in the uncertain world of sense experience, if it ever could have been. The same view seems to be present in the Cratylus, namely that words may once have had an original and natural fitness vis-à-vis their objects, but as the things of the world became increasingly materialized and distanced from the Forms, then the names which corresponded to them evolved also to the point where it is a disputed question whether the name which any given thing has is even the name it should have.

The Socrates of the Cratylus attempts, by etymologizing, to recover the original purity of the name by now so modified and corrupted as to be almost unrecognizable from the original. Unhappily, his use of the method is ad hoc and at times so frivolous that we may be forgiven for suspecting that Plato may secretly have been sending up the whole procedure. On a more serious note, whether he intended it or not, Plato lent his prestige to a method of word analysis that could not but have

serious consequences. Rather than pursuing a truly scientific method based on empirical observations, he opts instead for a Procrustean technique which allows him to traffic with his data, to add, delete, and generally alter sounds as it takes his fancy, all of which lead in the end to a series of sacrifices on the altar of expediency. By following this procedure, he surrendered in advance the likelihood of discovering anything about word formation that would be of serious interest to a professional linguist.

c) Metaphysics.

Plato never really elaborated a formal metaphysics per se; accordingly, scholars are obliged to sift through his writings extracting bits and pieces in the hope that once assembled they will give an accurate picture of Plato's view of the structure of reality. The conclusion to which such an enterprise impels us is that Plato saw reality as a hierarchic structure with three main levels: At the top are the Forms. The Forms are being ($\tau\omicron\ \acute{\omicron}\nu$), they are that which entirely is.⁵² Below the Forms are phenomena, this stage is halfway between being and non-being.⁵³ The lowest point on the scale of the degrees of reality is non-being ($\tau\omicron\ \mu\eta\ \acute{\omicron}\nu$),⁵⁴ this is that which in no way is. In Plato's own words:

"We are sufficiently assured of this, then, even if we should examine it from every point of view, that that which entirely is is entirely knowable, and that which in no way is is in every way unknowable....

If a thing, then, is so conditioned as both to be and not to be, would it not lie between that which absolutely and unqualifiedly is and that which in no way is?...

Then since knowledge pertains to that which is and ignorance of necessity to that which is not, for that which lies between we must seek for something between nescience and science, if such a thing there be."55

What Plato thinks there is between knowledge and ignorance he reveals a few lines further on:

"Were we not saying a little while ago that if anything should turn up such that it both is and is not, that sort of thing would lie between that which purely and absolutely is and that which wholly is not, and that the faculty correlated with it would be neither science nor nescience, but that which should appear to hold a place correspondingly between nescience and science..."

And now there has turned up between these two the thing that we call opinion."56

What is immediately striking about the metaphysical degrees of reality are the epistemological assumptions which appear to be inseparable from them.

"(A) Being is completely knowable...the object of knowledge...(B) Phenomena are the objects of opinion...opinion [unlike knowledge] is not unerring...and opinion is darker than knowledge but brighter than ignorance...And (C) Nonbeing is entirely unknowable."57

Plato here adds the crowning touch to the intellectualism already present in the Phaedo. He asserts in the Republic that what is entirely real is entirely knowable. Thus the soul's dialectical progress up through the degrees of reality lead it in the end to the discovery of the Forms, and to the further epistemological/metaphysical conclusion that if something can be known, it must exist - if it is knowable, then it is real. The actual existence of the objective essences (Forms) is a necessary postulate for both epistemology and metaphysics. In

the early 'Socratic' dialogues, the conception of the Forms seems to have been primarily moral and aesthetic, but as Plato matured, the Forms assumed another dimension besides accounting for why things are beautiful, and why certain acts are just or courageous. The role the Forms must now play is (to use Aristotle's terminology) that of formal and final causes of things. Since it would be overburdening an already shaky metaphysics by attributing a direct causal link between the Forms and their likenesses, Plato introduces an efficient cause in the 'person' of the Demiurge. The rôle of the Demiurge in the metaphysical model is curiously analogous to that of the soul in the epistemological model. In the latter case, as we have seen, it is the soul which, thanks to its previous existence in the world of the Forms, and thanks again to the doctrine of reminiscence, is able to bridge the gap between the transcendent and the physical worlds; whereas in the former case (the metaphysical model), the Demiurge bridges the gap between the world of the Forms and the world of sense by shaping the latter according to the patterns provided by the eternal archetypes, and thus accounting for whatever being and intelligibility the world of sense may be said to have. On the relationship between the Forms, the Demiurge and the world, Plato says:

"First then...in my judgment, we must make a distinction and ask, What is that which always is and has no becoming, and what is that which is always becoming and never is? That which is apprehended by intelligence and reason is always in the same state, but that which is conceived by opinion with the help of sensation and without reason is always in the process of becoming and perishing and never really is. Now everything that becomes or is created must of necessity be created by some cause, for without

a cause nothing can be created. The work of the creator, whenever he looks to the unchangeable and fashions the form and nature of his work after an unchangeable pattern, must necessarily be made fair and perfect, but when he looks to the created only and uses a created pattern, it is not fair or perfect."58

And further,

"This question...we must ask about the world. Which of the patterns had the artificer in view when he made it - the pattern of the unchangeable or of that which is created? If the world be indeed fair and the artificer good, it is manifest that he must have looked to that which is eternal, but if what cannot be said without blasphemy is true, then to the created pattern. Everyone will see that he must have looked to the eternal, for the world is the fairest of creations and he the best of causes. And having been created in this way, the world has been framed in the likeness of what is apprehended by reason and mind and is unchangeable, and must therefore of necessity, if this be admitted, be a copy of something."59

The notion that the world is an imitation or copy of the world of the Forms leads us to the perplexing but important questions raised by what is called Plato's theory of participation. This particular hypothesis makes its appearance as early as the Phaedo:

"...it was agreed that the various forms exist, and that the reason why other things are called after the forms is that they participate in the forms..."60

Furthermore,

"It seems to me that whatever else is beautiful apart from absolute beauty is beautiful because it partakes of that absolute beauty, and for no other reason."61

But,

"[An] overlooked question is why sensible particulars participate in, copy, or imitate the Forms. Very little attention is given to this question either by other commentators...or by Plato. Since our evidence is very tentative, our conclusions also must be. "Participate," "resemble," "imitate," and "copy," are verbs that suggest agency on the part of what participates; copies, etc. Now while Plato frequently describes sensible particulars as imitations or copies, he also uses the verb forms and says that the phenomena participate in, imitate or copy (Phaedo 74e, 100c) the Forms. This suggests that the phenomena are active in the process of participation; they participate in, imitate or copy. [Perhaps we are to read Phaedo 74d ff.] as a general account of why phenomena participate, imitate or copy the Forms; they strive to be like them but fall short and are deficient in that they never obtain that pure, context-free possession of a quality."⁶²

Whatever it is that Plato means by the notion of participation, one thing is certain: it is highly problematic. And since this question is not the focus of the present study, I shall not pursue it any further. However, it would be instructive to note the following:

"The existence and explanatory value of Platonic forms seem presupposed by the very possibility of discursive thought or stable language. But how we are to explain the relation of these forms to sensible objects remains a vexing question. "Participation" is the Platonic name for a relationship between an ideal, invariant form and a concrete changeable fact; a relation which may be mediated by a mathematical structure. It follows from the very character of this relation that one cannot "explain" it by any physical model: for one element in that model will not represent the form adequately, or if we assume it does,

we beg the question. Neither is it an explanation, except verbally and trivially, to point to a form of participation; for that tells us nothing about the way in which particular participation relations participate in that form."⁶³

In the attempt to distinguish universals from instances of universals, while at the same time preserving some causal link between them, Plato seems to have thought that the theory of participation would meet his requirements. But, as things stand, scholars are deeply divided on the question of Plato's meaning and intention, and since Plato offers so little in the way of positive explanation, we must conclude that the doctrine of participation ultimately fails to accomplish its objective, namely to explain the ontological mechanics whereby things are fashioned and named after the Forms.

4. Aristotle's Reaction.

a) Aristotle in the Academy.

"According to the evidence of his biographer, which is reliable, Aristotle wrote to King Philip of Macedon that he had spent twenty years with Plato. Since he was a member of the Academy down to the time of the latter's death (348/7), he must have entered it during 368/7. At that time he was a youth of about 17 years. When he left he was approaching his forties."⁶⁴

On the basis of the above widely-accepted testimony, we are reasonably certain about the date of Aristotle's entry into the Academy; and since the traditional year given for the birth of Plato is 428, then in the year 368/7, he would have been at or near sixty.⁶⁵ This is the age that A. E. Taylor

says he was when he undertook the second Sicilian journey.⁶⁶ It is a moot point whether Plato was personally on hand to welcome the young Aristotle to the Academy or not; what is important in this chronological sketch is that it is generally accepted that the second Sicilian journey took place after the composition of the Republic, but before he had undertaken the late dialogues (Theaetetus, Parmenides, Sophist, Statesman, Philebus, Timaeus and Critias). This sequence is accepted by Hamilton and Cairns,⁶⁷ Lutoslawski,⁶⁸ Raeder,⁶⁹ Taylor⁷⁰ and Ritter.⁷¹ There are alternatives, of course,⁷² but by and large, the chronology of the late dialogues is less controversial than of those which predate the Republic.

Given the many conjectures which might be offered about the significance of the time when Aristotle joined the Academy, there are several in particular which I feel are worthy of note in the present context. If we are right in assuming that the dialogues listed above represent a major part of Plato's attempt to ground knowledge in the apprehension of the permanent Forms, and right again in assuming that Aristotle's arrival in the Academy roughly coincided with the undertaking of this enterprise, then we have the basis for some interesting speculation. On the one hand, depending on which dialogues attributed to Plato are genuine, it seems reasonable to think that possibly half of Plato's total output, up to and including the Republic, antedate Aristotle's arrival, which leads us to conclude that there was already a solid body of work in place in the Academy upon his arrival. On the other hand, in his latest phase of productivity, Plato was beginning to crystallize his ideas on knowledge theory, dialectic and definition, so that Aristotle had a first-hand view of this whole period. There can be little doubt that, in consequence, "...the ceaseless exercises in classificatory dialectic...formed a unique

preparation for the future orderer and systematizer of the whole material of knowledge."⁷³

One can only guess at the nature of the personal relationship that existed between master and pupil at this time. One thing that ought to be remembered, though, is the disparity in their ages. At their first meeting, Plato was in his sixties while Aristotle was only seventeen, and when one genius, however old, sets out to teach another, however young, one cannot be indifferent to the consequences. In fact Jaeger speaks of an Aristotle who "...did not approach Plato's views in a cold and critical spirit, but was at first spellbound for many years by the overwhelming personal impression that they made on him as a whole."⁷⁴ Jaeger even goes so far as to say that Aristotle "...had accepted Plato's doctrines with his whole soul, and the effort to discover his own relation to them occupied all his life and is the clue to his development."⁷⁵ Jaeger goes on to provide a near-heroic defense of this highly debatable statement.

The paucity of clear-cut facts about the relationship between Plato and Aristotle during the years of the latter's sojourn at the Academy is extremely annoying, nevertheless, it is likely that Aristotle was more a Platonist than anything else, since there was not much else he could have been. The, in some respects crude, materialism of the Ionian cosmologists would hardly have been in vogue at that time, the flaws of extreme Heracliteanism had been devastatingly exposed in the Theaetetus,⁷⁶ and the Eleatic position had fared no better in the Sophist.⁷⁷ As for the Pythagorean belief that things exist by 'imitation' of 'numbers', one has only to read Aristotle's account of it and his criticism⁷⁸ to determine the extent of his sympathy. Thus, Aristotle is left with Platonism, a truly magnificent achievement of the human mind. His early exposure

to this great intellectual edifice and his personal relationship with its architect could not have failed but to leave its mark on his all-devouring mind. On the basis of his careful reconstruction of Aristotle's early dialogues, Jaeger asks:

"Did the disciple obstinately and pedantically dog the master's footsteps in order to reduce each one of his works to shreds in turn? Before ascribing such a malady of taste and tact, men should have given more serious attention to the other possibility that the purpose of these dialogues was simply and solely to follow Plato, in philosophy as well as in all other respects."⁷⁹

This may very well be true, but there is little doubt, as the Aristotelian corpus shows, that on certain very fundamental questions, there was an imperfect sympathy between the two men. On the subject of the theory of Intelligible Forms much has already been written. It would, however, be interesting to cast an eye at how Aristotle saw the development of the theory.⁸⁰ The following account appears in Metaphysics A, 6, and follows a brief sketch of the opinions of his predecessors.

"After the systems we have named came the philosophy πραγματεία of Plato, which in most respects followed these thinkers [i.e. the Italians], but had peculiarities that distinguished it from the philosophy of the Italians. For having in his youth first become familiar with Cratylus and with the Heraclitean doctrines (that all sensible things are ever in a state of flux and there is no knowledge ἐπιστήμη about them), these views he held even in his later years. Socrates, however, was busying himself πραγματευόμενος about ethical matters and neglecting the world of nature as a whole but seeking the universal in these ethical matters, and fixed thought διάνοιαν for the first time on definitions; Plato accepted his teaching, but

held that the problem applied not to sensible things but to entities of another kind - for this reason, that the common definition /ὁρισμός/ could not be a definition of any sensible thing, as they were always changing. Things /ὄντα/ of this other sort, then, he said, were all named /λέγειν/ after these, and in virtue of a relationship to these; for the many exist by participation /μέθεξις/ in the Ideas /εἶδος/ that have the same name /συνώνυμος/ as they. Only the name 'participation' was new; for the Pythagoreans say that things exist by 'imitation' /μιμεῖσθαι/ of numbers, and Plato says that they exist by participation, changing the name. But what the participation or the imitation of the Forms could be they left an open question."⁸¹

The above quotation tells us a good deal, leaving aside the ambiguity of what Aristotle means when he says that Plato's philosophy 'followed' the Italians. On the one hand, he could be speaking chronologically, on the other, he could be inferring a cause-effect relationship between the doctrines of the Pythagoreans and those of Plato.⁸² What Aristotle does alert us to, however, is the influence of the Heraclitean position that all things are in flux and therefore unknowable, and as a counterpoint to this, the Socratic passion for universals and definitions, which Plato also accepted. It is in this conflict between two seemingly irreconcilable positions that Plato borrows the Pythagorean notion that things exist by imitating numbers, and alters the theory to argue that things exist by 'participating' in the Intelligible Forms.

This thesis is what permits Plato to account for the way in which one thing can be said of another, and since it is the purpose of this chapter to suggest a Platonic antecedent for the Aristotelian distinction between predication and inherence, it is to Plato's views on predication that we now turn.

b) The Platonic Theory of Predication.

The theory of Intelligible Forms represents the cornerstone of Plato's world view, and its impact on his theory of predication is of the highest importance. What is interesting and unusual about the Theaetetus is that it scarcely, if ever, so much as alludes to the Intelligible Forms. Plato's method in this dialogue is to disprove the opposite of the claim he wishes ultimately to defend in the Sophist, namely that there are Intelligible Forms, and that these Forms will give him the necessary conceptual apparatus to resolve the question: What is knowledge?

In the Theaetetus, Plato demonstrates that true knowledge cannot be acquired from the sensible world, thus the need for the Intelligible Forms becomes apparent, however indirectly. Plato devotes a considerable amount of space to a destructive criticism of the extreme Heraclitean view that because all things are in flux we can have no knowledge about them whatsoever. This brand of Heracliteanism was too extreme for Plato's taste,⁸³ but it should also be noted that a large part of the Sophist is taken up by showing that the Eleatic position, though opposite, is no less untenable.⁸⁴ When the Eleatics forbid us to speak about non-being, the results are philosophically cataclysmic since their prohibition leads ultimately to the denial of every predication and thus of every judgment, with one exception only.⁸⁵ "One has to remember that the judgment, as it at all times is formulated, is the incontestable assumption of all logic and of all disputes."⁸⁶ The only judgment that Parmenides will allow is that: Being is one. Apart from the surviving Parmenidean fragments,⁸⁷ we have the testimony of Plato⁸⁸ and

Aristotle:

"...what is different from being does not exist, so that it necessarily follows, according to the argument of Parmenides, that all things are one and this is being."⁸⁹

The only way that Plato can liberate Philosophy from this one-sentence repertoire is to deny any truth to the great Parmenidean insight, and this he does.⁹⁰ He will further claim that all thinking takes place in the form of judgments.⁹¹ For the Eleatics this is fatal, since to the extent that they make any statements apart from variations on the theme 'Being is one', they contradict themselves.

Turning to the Platonic view of judgment, the position elaborated by Plato⁹² is easily summarized:

"In its simplest form, the judgment (this is true of every judgment) consists of a noun ($\delta\upsilon\omicron\mu\alpha$ in the narrower sense), which is the subject of the predication, and of a verb ($\phi\eta\mu\alpha$), which, in conjunction with the noun, expresses an action or passion of the subject, or it expresses a relation of the subject to something else and thereby indicates a positive or negative characteristic. A single noun or series of nouns gives us no predication [Sophist 262D].... He who makes...a judgment differentiates between two things in the concepts of the subject and the predicate; yet at the same time he assumes in the different things real relations which he wishes to characterize by the predication. The Being which is expressed in such judgments as "a man is good," "real things are at rest,"...means nothing else but such a relation between the concept of the subject and that of the predicate, a determining of the subject by the attributes of the predicate."⁹³

It is important to bear in mind that what the judgment expresses is a relation, and one commits a grave error if one thinks that in Plato's logic a judgment of the form S is P

affirms any identity between S and P.⁹⁴ For those who were never happy with rigid Eleaticism, the consequence of Plato's rejection of Parmenides is extremely gratifying. According to Plato's position, one can say that the being which is expressed in a judgment is, in a certain sense, identical with non-being, for to be in one respect is not to be in another.⁹⁵ For Plato, non-being is 'real' in the sense that it is other or different from the actual determinations possessed by the real subject. Non-being is inconceivable in any other sense.

To conclude this brief sketch of Plato's views on predication, we cannot escape the question: How do we know when judgments are true? In order to answer this, one must decide which definite relations between the concept of the subject and that of the predicate are valid and which are not. By comparing the propositions 'Theaetetus sits' and 'Theaetetus flies',⁹⁶ which have the same subject for their predicative relationships, Plato shows that

"...no one can fail to recognize the difference between the true and the false judgment. He improves the vague and controvertible definition of the false judgment [which "...states things that are not as being..." (Sophist 263B)], by saying that it truly predicates Being of an object (even flying has Being, i.e., it is an activity derived from experience), but it is a Being which does not belong to it; that is to say, it affirms of the subject a relation to something else which does not take place, or it denies a relation to something which actually takes place."⁹⁷

In the light of the foregoing, we can lay down the following conclusions: In the first place, there is no being which can exist independently of another, and further, that all relationships must be describable in a judgment. In the second, the validity of judgments depend upon the subject

about which the predications are made, and on the relations into which the subject is brought by the predication.⁹⁸ Now, while one wishes to avoid any indecent haste in criticizing this theory, it is not without its difficulties, which emerge from the old dilemma of 'the One and the Many'. As Plato says in the Republic: "We are in the habit...of positing a single idea or form in the case of the various multiplicities to which we give the same name."⁹⁹

It is not difficult to understand why Plato advances such a view. If x and y have some quality in common, there must be a sense in which that quality is present in them. The further assumption is entailed that the common quality exists in some sense 'over and above' the sensible objects which participate in it. This in turn raises the crucial question: Can one accept Plato's doctrine of predication without being antecedently committed to the theory of Intelligible Forms?

"There are at least two distinguishable perplexities that lead to a doctrine like Plato's. One perplexity is ontological: Why is it that things fall naturally into kinds? The other - and it is this other perplexity especially that gives life to the One-Over-Many Argument - is linguistic. The puzzle is this: How can it be that things are properly called by one name? To take this puzzle seriously we must indulge (1) the inclination to take the case of one name for each thing named (i.e. the case of an ideal proper name) as the paradigm case of a name, and also (2) the inclination to suppose that 'wise' in 'Pericles is wise' and 'a man' in 'Callias is a man' are names. If we go along with these inclinations then the puzzle, How can it be that many things are properly called by one name?, becomes real."¹⁰⁰

To suppose, as Plato seems to be doing, that qualities are things which, in an ideal sense, exist apart from the

things they are in is a natural consequence of the temptation to believe that because things and their qualities can be conceived apart, that they can exist apart. The temptation stems from the fact that we separate in the mind what is unified in reality.

"Plato wants us to suppose that it is by virtue of cathood that both Fenimore and Felix are cats. But if cathood is something "over against" Felix and Fenimore, Felix and Fenimore must be something apart from cathood. And what would either Felix or Fenimore be apart from cathood?"¹⁰¹

What indeed are we to make of the proposal that the 'whatness'¹⁰² of Felix and Fenimore exists apart from them? The standard criticism is one raised by Plato himself¹⁰³ and further elaborated by Aristotle,¹⁰⁴ the basic thrust of which is this: If there exists a plurality of large objects, then they are large in respect of their participation in the Intelligible Form of 'Largeness'. (Or, conversely, they are large because Largeness is somehow present in them). But, for this to be intelligible, does not a third form have to emerge, namely that of the relational identity between the Intelligible Form and the object which participates in it? And would one then not have to postulate yet another form to account for the relational identity, and yet another, and so on to infinity?

"There is a natural Platonic rejoinder to this rhetorical question. It is to reject the principle required to make the question legitimate. The principle is this: For x to bear a certain relation, R, to something else, y, x must be something in its own right, independent of its bearing R to y. The Platonic rejoinder is to reject this principle and to justify its rejection by pointing to things like reflections and shadows that are essentially or constitutively relational."¹⁰⁵

Insofar as Plato maintains that natural objects are not 'really real' (ὄντως ὄν), and if one accepts the schematic structure of reality as presented in the metaphor of the divided line¹⁰⁶ with its attendant conclusion that 'True Being' is only to be found in the world of Intelligible Forms then, of course, Plato can assert that natural objects are relationally dependent upon the world of Intelligible Forms for whatever degree of reality their imperfect natures allow them to have. Thus, nothing in the natural world exists in and of itself, it is dependent for both its being and its being known on the Intelligible Forms. The problem with all of this is that

"If the bearer of a proper name is nothing independent of bearing a certain relation to a certain Form, then it seems unreasonable to suppose that we can understand the relation between a proper name and what it names without the antecedent assumption that there are Forms. And if this is so, then the One-Over-Many Argument fails to provide a non-circular argument for the existence of Forms."¹⁰⁷

At the beginning of this section, I cited a number of dialogues and stated that they represent Plato's attempt to make knowledge of the sensible world possible by grounding the fluctuating and illusory objects of nature in a permanent world of transcendental essences. Aristotle's first exposure to the unique problems raised by the Platonic theory of predication could not have helped but colour his own first thoughts on that subject. At the end of the Sophist, Plato gives an example of how definitions are arrived at dialectically through division. The technique is quite satisfactory provided that one accepts the theory of Intelligible Forms on which it is based. But what is one to do if one does not accept the master theory on which all else depends? If one happens to be Aristotle, one pushes on

in an effort to find a new and more convincing explanation of what things are, and why. His break with Platonism is signaled nowhere more clearly than in the Nicomachean Ethics. He expresses his regret at such a rupture, yet,

"...it would perhaps be thought to be better, indeed to be our duty, for the sake of maintaining the truth even to destroy what touches us closely, especially as we are philosophers or lovers of wisdom; for while both are dear to us, piety requires us to honour truth above our friends."¹⁰⁸

Plato would no doubt have understood and approved such a sentiment, for does he himself not say that "...we must not honor a man above truth."¹⁰⁹

c) The Denial of the Theory of Intelligible Forms.

"...ne critique-t-il pas son maître pour avoir cru à la primauté de l'être par soi, mais bien pour n'avoir pas reconnu dans le monde d'ici-bas la présence de véritables essences. Il reproche à Platon 1) d'avoir créé en posant les Idées une doublure inutile des substances sensibles: celles-ci sont déjà par essence ce qu'elles sont. 2) D'avoir affirmé que les Idées sont les essences des choses sensibles, alors qu'elles ne leur sont pas immanentes. 3) D'avoir posé des Essences subsistantes de réalités qui, dans le monde sensible ne possèdent qu'un être accidentel et qui n'ont donc aucune communauté de nature avec leur modèle idéal."¹¹⁰

According to Ross: "The essence of the theory of Ideas lay in the conscious recognition of the fact that there is a class of entities, for which the best name is probably 'universals',

that are entirely different from sensible things."¹¹¹ And Aristotle says:

"...those who believe in the Ideas... make the Ideas universal and again treat them as separable and as individuals....The reason why those who described their substances as universal combined these two characteristics in one thing, is that they did not make substances identical with sensible things. They thought that the particulars in the sensible world were in a state of flux and none of them remained, but that the universal was apart from these and something different. And Socrates gave the impulse to this theory ...by reason of his definitions, but he did not separate universals from individuals; and in this he thought rightly in not separating them. This is plain from the results; for without the universal it is not possible to get knowledge, but the separation is the cause of the objections that arise with regard to the Ideas. His successors, however, treating it as necessary, if there are to be any substances besides the sensible and transient substances, that they must be separable, had no others, [i.e. Socrates' successors believed in separate, universal substances because they had no others] but gave separate existence to these universally predicated substances, so that it followed that universals and individuals were almost the same sort of thing."¹¹²

In Metaphysics B, Aristotle amplifies his criticism by inquiring into the Platonic first principles:

"We must...ask whether...[the first principles] are universal or what we call individuals. If they are universal, they will not be substances; for everything that is common indicates not a 'this' [*τὸδε τι*] but a 'such' [*τοιοῦδε*], but substance is a 'this'. And if we are to be allowed to lay it down that a common predicate is a 'this' and a single

thing, Socrates will be several animals - himself and 'man' and 'animal', if each indicates a 'this' and a single thing.

If, then, the principles are universal, these results follow; if they are not universals but of the nature of individuals, they will not be knowable; for the knowledge of anything is universal."¹¹³

It seems that what Aristotle finds annoying is not that there are universals, for he agreed with Plato that universals are necessary if one is to have knowledge, but rather that Plato separates them from the sensible world and requires them to exist apart. This is not to say that Aristotle thought that universals were 'in' sensible objects qua universals. In Chapter V we shall take up the consequences of this misunderstanding. For the moment, let us merely allow F. M. Cornford to say that

"The denial of the world of Forms is the central point of Aristotle's dissent from Platonism. He will not admit that the ideal Forms can have any real existence, apart from the visible and tangible things which embody them."¹¹⁴

Once again, I serve notice that in Chapter V, we shall see that the point of Aristotle's criticism of the theory of Intelligible Forms is that Plato makes the Forms exist apart from the things they are supposed to be the Forms of. But Aristotle does not think that the Forms qua intelligible (therefore, qua universal) are 'in' things. But this crucial point shall be reserved for discussion in the appropriate place.

In the final analysis, Aristotle lays aside the theory of Intelligible Forms. His reasons for doing so are that, firstly, the theory of predication it points to is circular, and secondly, the attempt to relate temporal objects to transcendently ideal archetypes is of doubtful validity. Having

rejected the ground of Plato's theory of predication, Aristotle had to find a new basis for his own theory, and he makes a beginning in this direction by distinguishing between predication and inherence.

NOTES TO CHAPTER I

1. Meta., Γ, 5, 1009b34-38, in Aristotle: Metaphysics, (R. Hope, trans.), Ann Arbor: University of Michigan Press, 1960).
2. Quoted by Plato at Theaetetus, 152A.
3. W. K. C. Guthrie, The Greek Philosophers: Thales to Aristotle, (London: Methuen & Co., Ltd., 1967), pp. 70-71.
4. The Sophistic Movement, (Cambridge: Cambridge University Press, 1981).
5. Eduard Zeller, Outlines of the History of Greek Philosophy, (L. R. Palmer, trans.), (New York: Dover Publications, Inc., 1980), pp. 101-02.
6. Guthrie, op. cit., pp. 74-75.
7. Meta., M, 4, 1078b17-30.
8. Guthrie, op. cit., p. 77.
9. Meta., M, 4, 1078b30, (W. D. Ross, trans.), in The Basic Works of Aristotle, (R. McKeon, ed.), (New York: Random House, Inc., 1941). Unless otherwise indicated, all English language quotations from Aristotle are taken from the translations contained in this volume.
10. In Aristotle's fondness for 'snub-nosed' as an example of 'informed matter', [e.g. Meta., Z, 10, 1035a4-5], H.-G. Gadamer claims that Aristotle is implying by this a preference for Socratic rather than Platonic metaphysics. Gadamer argues that Socrates' nose was well-known in antiquity, and concludes: "In any case it seems clear to me that Socrates is being alluded to here in order to illustrate the superiority of his metaphysics over Plato's with one of the former's physiognomical characteristics." See, H.-G. Gadamer, Dialogue and Dialectic: Eight Hermeneutical Studies on Plato, (P. C. Smith, trans.), (New York: Yale University Press, 1980), p. 212.

11. Euthyphro, 5D, in E. Hamilton and H. Cairns, eds., The Collected Dialogues of Plato, (Princeton: Princeton University Press, 1971). I am assuming, in the quotation cited, that $\iota\delta\acute{\epsilon}\alpha$ is similar to the conception of the Platonic 'Idea' of the later dialogues, an assumption which is debatable. Given that the Euthyphro is generally considered to be a 'faithful' Socratic dialogue and, as we have seen, Aristotle did not believe that Socrates held to the separateness of the $\iota\delta\acute{\epsilon}\alpha$, the question may well be asked whether the separation implied here is truly Socratic; or whether Plato had the later doctrine already in mind at this early stage of his philosophical development. (Unless otherwise indicated, all references to the writings of Plato are to the translations contained in this volume.)
12. A. H. Armstrong, An Introduction to Ancient Philosophy, (London: Methuen & Co., Ltd., 1972), p. 36.
13. Phaedo, 66D-67A. I will use the word 'soul' in connection with Plato because in many ways it accords with our modern understanding of that notion. However, in the later discussion of Aristotle, I will use $\psi\upsilon\chi\eta$ exclusively because what Aristotle understands by this notion would not translate accurately as 'soul'.
14. Republic IV, 436 ff.
15. Phaedo, 74E.
16. Republic IX, 586D.
17. 248A-B.
18. 69D ff.
19. Armstrong, op. cit., p. 45.
20. F. M. Cornford, Principium Sapientiae: The Origins of Greek Philosophical Thought, (Gloucester, Mass.: Peter Smith, 1971), pp. 47-48.
21. Ibid., pp. 48-49.
22. Armstrong, op. cit., p. 41.
23. H. Teloh, The Development of Plato's Metaphysics, (University Park: Pennsylvania University Press, 1981), p. 94.

24. And this is, in fact, a problem that he himself raises at Parmenides, 133A-134C.
25. Phaedo, 72E.
26. 81C.
27. 73A-B.
28. 247C.
29. See especially Timaeus, 29A-D.
30. Phaedrus, 247E.
31. N. P. White, Plato on Knowledge and Reality, (Indianapolis: Hackett Publishing Co., 1976), p. 1.
32. In order not to overburden this section with problems not directly relevant to it, I shall by-pass the ethical purpose of the theory of Forms. In circumstances other than these, such an omission would be hard to justify since it is one of Plato's central concerns.
33. W. Allen, "Spring Bulletin," in Getting Even, (New York: Vintage Books, 1978), p. 44.
34. Cratylus, 440A-C.
35. Theaetetus, 161D-162A.
36. By W. K. C: Guthrie, see note 8, above.
37. Meno, 71B.
38. William Shakespeare, Henry IV, Part I, V, iv, 118.
39. White, op. cit., p. 3.
40. See section (b), below.
41. Meno, 70A ff.
42. Euthyphro, 5D. See note 11, above. There is no unanimity among commentators on the question of whether there is a theory of Forms in the Euthyphro, or not. See, W. D. Ross, Plato's Theory of Ideas, (Oxford: Clarendon Press, 1961), pp. 12-13.

43. Cf. Cratylus, 388B.
44. Ibid., 390E.
45. See note 11, above.
46. Cratylus, 390E.
47. Ibid., 421D.
48. Unlike Plato, Aristotle does not dabble in etymology, although the discussion of παρώνυμα in Categories, 1, could be taken as an instance of names being derived from others. In general, though, Aristotle sees language as the product of convention, so he would apparently come down on the side of θέσις in the above-mentioned controversy. At De Interpretatione, 2, 16a19, he says that a name is a spoken sound significant by convention.
49. Timaeus, 29B-C.
50. Always assuming what is not at all clear, namely, that Plato is taking the etymological method seriously.
51. Cratylus, 425A.
52. Republic V, 477A.
53. Ibid.
54. Ibid.
55. Ibid., 477A-B.
56. Ibid., 478D.
57. Teloh, op. cit., p. 125.
58. Timaeus, 27D-28A.
59. Ibid., 28C-29B.
60. Phaedo, 102B.
61. Ibid., 100C.
62. Teloh, op. cit., p. 138.

63. R. S. Brumbaugh, Plato on the One: The Hypotheses in the Parmenides, (Port Washington, N.Y.: Kennikat Press, 1973), p. 233.
64. W. Jaeger, Aristotle: Fundamentals of the History of His Development, (R. Robinson, trans.), (London: Oxford University Press, 1967), p. 11.
65. A. E. Taylor, Plato: The Man and His Work, (London: Methuen & Co., Ltd., 1971), p. 1.
66. Ibid., p. 7.
67. i.e. this is the order in which Hamilton and Cairns present them.
68. Ross, op. cit., p. 10.
69. Ibid.
70. i.e. this is the order in which Taylor discusses them.
71. C. Ritter, The Essence of Plato's Philosophy, (A. Alles, trans.), (New York: Russell and Russell, Inc., 1968), pp. 16-17.
72. Ross, ibid.
73. T. Gomperz, A History of Ancient Philosophy, IV, (G. G. Berry, trans.), (New York: Humanities Press, 1964), p. 37.
74. Jaeger, op. cit., p. 12.
75. Ibid., p. 13.
76. 179C-183C.
77. See especially 244B-245E, and 255E-259D.
78. Meta., A, 6, 987b12, and 8, 989b29-990a32.
79. Jaeger, op. cit., p. 31.
80. For a discussion of Aristotle's reliability as a reporter and interpreter, see H. F. Cherniss, Aristotle's Criticism of Plato and the Academy, (New York: Russell and Russell, Inc., 1962), pp. ix-xxv. Cherniss is unsympathetic in the extreme.

81. Meta., A, 6, 987a29-b13.
82. This problem, though interesting, does not concern us here, involving as it does Plato's infamous 'unwritten doctrines'. For two sides to this debate, see H. F. Cherniss, The Riddle of the Early Academy, (New York: Russell and Russell, Inc., 1962), pp. 60-85, and W. D. Ross, op. cit., pp. 142-153. Cherniss' position is that there are no esoteric doctrines, and that Aristotle is extremely unreliable as a historian of philosophy. This view is challenged by Ross.
83. Theaetetus, 179C-183C.
84. Sophist, 244B-245E, and 255E-259D.
85. Ibid., 237A-E. There is an echo of this difficulty also in Cratylus, 429E. See also, Ritter, op. cit., p. 171.
86. Ritter, ibid.
87. DK, 28 8, 6.
88. Theaetetus, 180E.
89. Meta., B, 4, 1001a33-35. See also, De Generatione et Corruptione, I, 8, 325a4-7.
90. Sophist, 244B-E, and 245B-259B; also reflected in Aristotle at Meta., N, 2, 1089a2-4.
91. Sophist, 263D-264B.
92. Ibid., 261C-264B.
93. Ritter, op. cit., pp. 171-72.
94. Ibid., p. 172.
95. This distinction had a crucial impact on Hegel's philosophy. In the Hegelian system, Being is the first category of Logic, and in the second moment of the dialectic of Becoming, he illustrates how non-Being can arise out of Being. It seems that as soon as Being acquires determinations of any kind, it becomes what it is in opposition to all other determinations it does not have.
96. This is Plato's own example, cf. Sophist, 263A-B.

97. Ritter, op. cit., pp. 172-73.
98. Ibid.
99. Republic X, 596A.
100. G. B. Matthews and S. M. Cohen, "The One and the Many," The Review of Metaphysics, 21(1968), pp. 630-31.
101. Ibid., p. 633. See also, Meta., Z, 14.
102. τὸ τὸ ἦν εἶναι
103. Parmenides, 132A-B.
104. Meta., A, 9, 990b17; Z, 13, 1039a2; K, 1, 1059b8; M, 4, 1079a14.
105. Matthews and Cohen, art. cit., p. 633.
106. Republic VI, 509D-511E.
107. Matthews and Cohen, art. cit., p. 634.
108. Nic. Eth., I, 6, 1096a11-16.
109. Republic X, 595C.
110. S. Mansion, "La doctrine aristotélicienne de la substance et le traité des catégories," in the Library of the Xth International Congress of Philosophy, (Amsterdam: North Holland Publishing Co., 1949), p. 1100.
111. Ross, op. cit., p. 225.
112. Meta., M, 9, 1086a30-b11.
113. Ibid., B, 6, 1003a5-14.
114. F. M. Cornford, Before and After Socrates, (Cambridge: Cambridge University Press, 1968), p. 88.

CHAPTER II

ARISTOTLE ON PREDICATION AND INHERENCE

1. Questions of Terminology.

Before proceeding to my discussion of predication and inherence, I wish to advise caution in our reading of what might be called 'technical terms' in the treatise Categories. In this connection, I wish particularly to point to κατηγορεῖται and λέγεται, but there is an even more fundamental problem with the term κατηγορία. The question is whether our term 'category' has its origin in κατηγορία or in κατηγορέω. It is commonly accepted that the technical meaning of κατηγορία in the Categories is 'predicate'. For its own part, the verb κατηγορέω has a variety of meanings, chief among them are: 1) to speak against in the sense of to accuse; 2) to reveal, make known or signify; 3) to attribute (predicate) something of something else; and 4) to say something about something else. In what follows, I shall make use of meanings (2), (3) and (4) primarily since it seems likely that these are the technical uses which Aristotle intends κατηγορέω and its variants to have. A different form of κατηγορέω is κατηγορεῖται which is most often used in the sense of 'predicated of' or 'said of', although as we shall see later, Aristotle also uses this term in another technical sense, but that need not concern us at the moment.^α

As noted above, the other problematic term is λέγεται, which usually means 'said of', 'said', or 'called'.^β I shall note also that Aristotle required that λέγεται serve two non-technical functions as well. One of these occurs in the first

sentence of chapter one: "ὁμώνυμα λέγεται...", ("Things are called (λέγεται) 'homonymous'...")¹ In this instance, he is ascribing a technical name (homonymous) to a set of things. The second non-technical use of λέγεται occurs in the first sentence of chapter two: "τῶν λεγομένων τὰ μὲν κατὰ συμπλοκὴν λέγεται...", ("Of things that are said (τῶν λεγομένων), some are said (λέγεται) in combination...")² In this case, he is concerned with forms of the term λέγεται used in connection with linguistic expressions.

As for κατηγορεῖται (and its variants e.g. κατηγορεῖσθαι), it makes its debut in Categories, 5, 2a19 ff. Κατηγορεῖται and its cognates sometimes expresses a relation between a linguistic item and an ontological item; for example, in a definition of the 'said of' relation, Aristotle wishes to predicate the name 'man' of the individual man:

"Φανερόν δὲ ἐκ τῶν εἰρημένων ὅτι τῶν καθ' ὑποκειμένου λεγομένων ἀναγκαῖον καὶ τοῦ νομα καὶ τὸν λόγον κατηγορεῖσθαι τοῦ ὑποκειμένου, οἷον ὁ ἄνθρωπος καθ' ὑποκειμένου λέγεται τοῦ τινὸς ἀνθρώπου, καὶ κατηγορεῖται γε τοῦ νομα." ³

"It is clear from what has been said that if something is said of a subject both its name and its definition are necessarily predicated of the subject. For example, man is said of a subject, the individual man, and the name is of course predicated (since you will be predicating man of the individual man), and also the definition of man will be predicated of the individual man (since the individual man is also a man)." ⁴

Aristotle uses the verb in this way consistently from Categories, 5, 2a11-33. As a final note, I would point out that there are a number of instances where Aristotle uses κατηγορεῖται interchangeably with the technical use of λέγεται. One such appears to be a bid to avoid redundancy:

"Whenever one thing is predicated /κατηγορηται/ of another as of a subject, all things said of /λέγεται/ what is predicated /τοῦ κατηγορουμένου/ will be said of /ρήθήσεται/ the subject also."

2. Predication and Inherence: A Distinction Between καθ' ὑποκειμένου λέγεσθαι and ἐν ὑποκειμένῳ εἶναι.

The introduction of these two expressions occurs in chapter two of the Categories, which contains the bulk of Aristotle's remarks on the distinction between predication (to be said of a subject - καθ' ὑποκειμένου λέγεσθαι) and inherence (to be in a subject - ἐν ὑποκειμένῳ εἶναι). Before proceeding to a discussion of a modern controversy surrounding these two notions, I shall attempt a preliminary prima facie exposition of what Aristotle seems to intend by establishing such a distinction.

"Τῶν ὄντων τὰ μὲν καθ' ὑποκειμένου τινὸς λέγεται, ἐν ὑποκειμένῳ δὲ οὐδενὶ ἐστίν, οἷον ἄνθρωπος καθ' ὑποκειμένου μὲν λέγεται τοῦ τινὸς ἀνθρώπου, ἐν ὑποκειμένῳ δὲ οὐδενὶ ἐστίν· τὰ δὲ ἐν ὑποκειμένῳ μὲν ἐστίν, καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται (ἐν ὑποκειμένῳ δὲ λέγω, ὃ ἐν τινι μὴ ὡς μέρος ὑπάρχον ἀδύνατον χωρὶς εἶναι τοῦ ἐν ᾧ ἐστίν), οἷον ἡ τῆς γραμματικῆς ἐν ὑποκειμένῳ μὲν ἐστίν τῇ ψυχῇ· καθ' ὑποκειμένου δ' οὐδενὸς λέγεται, καὶ τὸ τὸ λευκὸν ἐν ὑποκειμένῳ μὲν τῷ σώματι ἐστίν (ἅπαν γὰρ χρῶμα ἐν σώματι), καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται· τὰ δὲ καθ' ὑποκειμένου τε λέγεται καὶ ἐν ὑποκειμένῳ ἐστίν, οἷον ἡ ἐπιστήμη ἐν ὑποκειμένῳ μὲν ἐστίν τῇ ψυχῇ, καθ' ὑποκειμένου δὲ λέγεται τῆς γραμματικῆς· τὰ δὲ οὔτ' ἐν ὑποκειμένῳ ἐστίν οὔτε καθ' ὑποκειμένου τινὸς λέγεται, οἷον ὁ τῆς ἄνθρωπος καὶ ὁ τῆς ἵππος· οὐδὲν γὰρ τῶν τοιούτων οὔτε ἐν ὑποκειμένῳ ἐστίν οὔτε

καθ' ὑποκειμένου λέγεται. ἀπλῶς δὲ τὰ
 ἄτομα καὶ ἐν ἀριθμῷ κατ' οὐδενὸς ὑποκει-
 μένου λέγεται, ἐν ὑποκειμένῳ δὲ ἓν
 οὐδὲν κωλύει εἶναι. ἡ γὰρ τις γταμμα-
 τικὴ τῶν ἐν ὑποκειμένῳ ἐστί." 6

"Of things there are: (a) some are said of
 a subject but are not in any subject. For
 example, man is said of a subject, the in-
 dividual man, but is not in any subject.
 (b) Some are in a subject but are not said
 of any subject. (By 'in a subject' I mean
 what is in something, not as a part, and
 cannot exist separately from what it is in.)
 For example, the individual knowledge-of-
 grammar is in a subject, the soul, but is
 not said of any subject; and the individual
 white is in a subject, the body (for all co-
 lour is in a body), but is not said of any
 subject. (c) Some are both said of a sub-
 ject and in a subject. For example, know-
 ledge is in a subject, the soul, and is also
 said of a subject, knowledge-of-grammar.
 (d) Some are neither in a subject nor said
 of a subject, for example, the individual
 man or individual horse - for nothing of this
 sort is either in a subject or said of a sub-
 ject. Things that are individual and numeri-
 cally 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." 7

It is immediately obvious that Aristotle is dealing with
things (ὄντων), so that, in this section of the Categories, he
 is revealing a four-fold ontological classification. If we
 follow the divisions contained in Ackrill's translation, given
 above, we see that: (a) refers to the species and genera of
 primary substances; while (b) is taken to refer to individual
 non-substances - that is, individuals drawn from the nine non-
 substance categories.⁸ Part (c) contains a τε...καὶ construc-
 tion, which alerts us to the fact that some things are both

'said of' and 'in' a subject. The most commonly accepted interpretation of this passage argues that its intended referents are species and genera in the non-substance categories which are (i) in substances (whether only in secondary, or also in primary), and (ii) said of items lower down in their own categorial tree. For example, knowledge is in a subject (the soul), but it is also said of such items as individual 'pieces' of grammatical or mathematical knowledge, which are also in the soul. Finally, in part (d) the οὐτ'...οὐτε construction signals the fact that some things are neither in a subject, nor said of a subject, in other words, individual primary substances themselves. The notions of predication and inherence are only intelligible in terms of a subject. A subject is a particular in the category of substance; an individual substance serves only as the subject for predicates, it itself is never a predicate.⁹ Further support is given to this view in the Prior Analytics:

"Of all the things which exist some are such that they cannot be predicated of anything truly and universally, e.g. Cleon and Callias, i.e. the individual and sensible, but other things may be predicable of them (for each of these is both man and animal); and some things are themselves predicated of others, but nothing prior is predicated of them; and yet others of them, e.g. man of Callias and animal of man. It is clear then that some things are naturally not stated of anything: for as a rule, each sensible thing is such that it cannot be predicated of anything, save incidentally."¹⁰

Thus, to summarize the above four-fold classification, we have:

- (a) That which is predicable of a subject, but is not inherent in it;
- (b) that which is inherent in a subject, but is not predicable of it;

- (c) that which is both;
- (d) that which is neither.

We may note that (a) and (c) deal with essential predication; (b) treats of non-essential predication (inherence), while (d) is the primary substance which serves as the ground for both predication and inherence. This four-fold classification, based on the predication-inherence distinction, summarizes the essence of Aristotle's early ontology. But, before proceeding to a discussion of the central problem of this doctrine, I think that an elaboration of the notions 'essential' and 'non-essential' predication would be a useful preliminary.

(a) Essential Predication:

"[A reason] Aristotle has for making a distinction between predication and inherence lies in an attempt to distinguish something [that] Plato does not clearly distinguish, namely, how particulars such as an individual man and his bravery participate in the form of bravery. If the form in which a thing participates is supposed to reveal to us what the thing is, we can hardly say that Socrates participates in the form of bravery, since bravery is not what Socrates is. The predication inherence distinction may in this way be understood as Aristotle's first attempt to distinguish what is essential from what is incidental to the nature of an individual thing. What is predicated of a subject is essential to its being what it is and what is present in a subject is incidental to this."¹¹

Or, to put it another way:

"What a thing is is not in it; what is in a thing is not what it is. Predicability in name and definition provides a determinate and explicit rule for distinguishing secondary substances...from items present in a substance."¹²

That it is a further mark of something that is predicated essentially is that its definition will also be predicable we have already seen in Aristotle's formulation of the 'said of' relation.¹³ As Joseph C. Kunkel notes:

"'Predicated of' denotes the genus-species-individual or essence-singular relationship. Only the species, genus, or essence is predicable of the individual subject. Accidental predication is prohibited."¹⁴

Building on his interpretation of the 'said of' relation in his article "The One and the Many,"¹⁵ S. M. Cohen offers this formulation:

- "(1) " $\emptyset$ is said of a subject, x, if and only if, x is said to be a $\emptyset$ (or a kind of $\emptyset$).
- (2) "That is, $\emptyset$ is said of a subject, x, if and only if, x is classified /in an absolutely fundamental way/ as a $\emptyset$.
- (3) "If x is classified as a $\emptyset$, then the definition of $\emptyset$ will be predicable of x."¹⁶

If, in statement (3) above, we replace the variables with concrete terms, we would get: "If Socrates is classified as a man, then the definition of man will be predicable of Socrates."

That the same is not true of accidental (non-essential) predication is clear by extension. For example, the individual man - Socrates - can have 'man' (species) and 'animal' (genus) predicated of him, for they are essential to his being what he is. He cannot, on the other hand, have 'white' predicated of him, because to be white is not what Socrates is, it is only something that he has. He could just as well have some other colour without ceasing to be what he is.

Aristotle thinks that all that is predicated (essentially) of the predicate will be predicated of the subject also,¹⁷ and since one of the things predicable of a predicate is its definition, then the definition will be predicable of the subject.

A further refinement occurs in the Topics, in which Aristotle says that that part which indicates the essence is its definition¹⁸ and states here and elsewhere¹⁹ that definitions are predicable (at least to the extent that they convey true knowledge of the genus and species). In the Posterior Analytics, he is even more explicit:

".../we assert that/ attributes predicated as belonging to the essential nature are necessary and that universals are necessary, and since the attributes which we select as inhering in a triad, or in any other subject whose attributes we select in this way, are predicated as belonging to its essential nature.../they are so/ because we make the further assumption that the substance of each subject is the predication of elements in its essential nature down to the last differentia characterizing the individuals. It follows that any other synthesis thus exhibited will likewise be identical with the being of the subject."²⁰

In the above quotation, Aristotle identifies substance as: (a) coextensive with its form, or 'whatness', and (b) as the prime example of individuality. This prefigures a later statement in the Metaphysics to the effect that "...in the case of being primarily and essentially the being is one and the same with its "what" or intelligible constitution."²¹ In other words, the being of the primary substance is identical with its form, or essence, since a thing cannot be without being something, and what makes it be something is the substantial form. This is what Aristotle calls its 'intelligible constitution', and it fits in nicely with his formulation of the principle of identity:

"...each particular thing is held to be identical with its own primary being, and "what it is to be" anything is accordingly said to be the primary being of that particular thing."²²

The intelligible constitution of a thing is its essence, and the essence qua 'intelligible' must possess an aspect susceptible of universal predication. In consequence, we may say that, for Aristotle, universals are predicable while particulars are inherent, (i.e. non-substantial particulars). To use a typically Aristotelian example, species and genus (man and animal), plus the specific difference (rational) may be predicated of Socrates, but are not in Socrates. Or, knowledge is in Socrates, but is not predicated of him; knowledge may, however, be predicated of grammar, but is not in grammar.

"In general, a universal is not something which exists above and beyond the individuals which together make up the ground for classifying them as instances of that universal....The actual claim that Aristotle makes, in answer to Plato's thesis that forms could exist even if particulars did not, is that if these primary substances (i.e. particulars in the category of substance) did not exist, it would be impossible for what is predicated of or present in primary substances to exist.... Universals predicated of primary substances are not particulars existing apart from each and every primary substance of which they are predicated, and universals present in primary substances are simply universals predicated of particulars which cannot exist apart from the primary substances in which each of these particulars is present."²³

The universals which are both present in a substance, and predicable of certain unnamed particulars are, of course, species and genera in categories other than substance. For example, we know that knowledge is a universal, and that knowledge can be in a subject (the soul),²⁴ but is not predicable of Socrates; on the contrary, the universal is predicated of the unnamed particulars. If we were to argue that among the things that Socrates knows, one such is that the word $\chi\omega\rho\iota\sigma\mu\acute{o}\varsigma$ does not begin with

the letter 'k', then this would be a particular piece of grammatical knowledge of which knowledge qua universal would, of course, be predicated.

As for Plato's view that the Forms could exist even if the particulars that instantiate them did not, the

"...existence of the Aristotelian universal is not dependent on the existence of one of the things of which it is predicated, provided that the universal is predicated of other things."²⁵

In other words, the genus 'animal' and the species 'man' do not depend on any particular man for their existence. However, their existence does depend on some animals in general and men in particular. If there were no primary substances of which these were the universals, then the genus and species of them would not exist either. As Aristotle says: "...if the primary substances did not exist it would be impossible for any of the other things to exist."²⁶ It seems that by the phrase 'any of the other things', Aristotle not only means secondary substances, but also the nine non-substance categories.

(b) Accidental Predication (Inherence).

From the foregoing, it should be clear that essential predication involves those attributes which belong to the subject necessarily and on account of its 'what it is to be that thing.'²⁷ We must now turn our attention to non-essential predication. Like essential predicates, accidental predicates do belong to the subject, but neither universally nor necessarily. It must be clear from the outset that accidental predication is totally dependent upon substantial being.²⁸ We must further be aware of the sense in which we are to understand the term accidental. We mean by this a 'coincident'. Aristotle explains his meaning in

the Posterior Analytics:

"...a thing consequentially connected with anything is essential; one not so connected is 'coincidental'. An example of this is 'while he was walking it lightened': the lightning was not due to his walking; it was, we should say, a coincidence. If, on the other hand, there is a consequential connection, the predication is essential; e.g. if a beast dies when its throat is being cut, then its death is also essentially connected with the cutting, because the cutting was the cause of death, not a 'coincident' of the cutting."²⁹

We may compare this text with Metaphysics Δ, 30, which reads:

"'Accident' means (1) that which attaches to something and can be truly asserted, but neither of necessity nor usually..."³⁰

"'Accident' has also (2) another meaning, i.e. all that attaches to each thing in virtue of itself but is not in its essence..."³¹

Another distinguishing mark of a coincidence is provided by Aristotle in the minor treatise On Prophesying by Dreams:

"...by 'coincidence' I mean, for example, the occurrence of an eclipse of the sun while someone is taking a walk; for the walking is neither a token nor a cause of the eclipse, nor the eclipse [a cause or token] of the walking. For this reason no coincidence takes place according to a universal or general rule."³²

Aristotle's denial of the possibility that coincidences can occur in accordance with universal or general rules also has the effect of denying that there can be a science of accidents, a position he also adopts in two other treatises.³³

Further, we are not speaking of the accidental as fortuitous (τυχόν) or as chance (τύχη).³⁴ Nor are we speaking of accidental change.³⁵ But rather, we mean 'accidental' in the sense of 'accidental conjunction'.³⁶ This is the sense of what

Aristotle means when he says:

"...τὰ δὲ ἐν ὑποκειμένῳ μὲν ἐστὶ, καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται (ἐν ὑποκειμένῳ δὲ λέγω, ὃ ἐν τινὶ μὴ ὡς μέρος ὑπάρχον αὐτον χωρὶς εἶναι τοῦ ἐν ᾧ ἐστίν)..."³⁷

"Some [things] are in a subject but are not said of any subject. (By 'in a subject' I mean what is in something, not as a part, and cannot exist separately from what it is in.)"³⁸

This is the key text referred to by those commentators investigating Aristotle's notion of inherence, and it takes the form of a two-part conditional. The traditional reading usually takes the following form: Y is in x if y is not a part of x and cannot exist apart from x.

We shall accept the usual understanding that the first half of the conditional denies that y is a physical part of x. For example, in the case of a man, let y be his colour, and x be his body. In this case, Aristotle would say that the colour is in the body, but it is not a part of the body (as an arm or a leg would be a part of the body). The problem stems from the second half of the conditional, namely the notion that in our example, the particular colour in a man's body cannot exist apart from the body that it is in. To extend the doctrine a bit further, (and to add more flesh to the bare bones of Aristotle's thesis), we are obliged to argue that if x is a primary substance, and y is a non-substance, then y must be a non-reproducible particular. But, why must it? Because if we admit that y could be reproduced in more than one subject (substance), then y could exist apart from x. In consequence, y would fail to be 'in' x in the required sense (i.e. y must be in x in such a way as to be incapable of existence apart from x).

"The inseparability requirement has the consequence that only individuals in non-

substance categories can be 'in' individual substances. Aristotle could not say that generosity is in Callias as a subject, since there could be generosity without any Callias. Only this individual generosity - Callias's generosity - is in Callias. Equally, white is not in chalk as subject, since there could be white even if there were no chalk. White is in body, because every individual white is the white of some individual body. For a property to be in a kind of substance it is not enough that some or every substance of that kind should have the property, nor necessary that every substance of that kind should have it; what is requisite is that every instance of that property should belong to some individual substance of that kind. Thus the inherence of a property in a kind of substance is to be analysed in terms of the inherence of individual instances of the property in individual substances of that kind."³⁹

The consequence of this is that the white which is in Socrates is not just 'white', and not just anybody's white, it is Socrates' white. It matters not at all that Crito is white also to exactly the same degree or shade, Crito's white is his own and not Socrates'. The most that we can say, according to the doctrine of inherence, is that Socrates and Crito represent two different instances of that particular colour. Non-substantial particulars (such as colours) acquire individuality on account of the substances that bear them. We can also extend the doctrine one step further and say that y need not even be an individual non-substance to be capable of inherence, but in this case, the 'x' which y cannot exist apart from must be a secondary substance. In other words, the extension of the concept x must be adequate to insure that y cannot exist apart from it.

That this theory is controversial almost goes without saying. In an influential article,⁴⁰ G. E. L. Owen attacks what he calls the 'dogmatic' reading⁴¹ of the passage on inherence, a

version of which I have just given. According to Owen:

"But, whatever he [Aristotle] says, the dogma commits him to holding that to identify any particular colour, or generally any individual other than a substance, involves identifying the individual substance which is its sole proprietor. And it commits him to something more surprising. It entails that any non-substance whose identification does not carry this condition, say the colour pink or the knowledge of Greek, can not be said to be in any individual subject at all....Pink is in body but not in Smith's or any one else's body. General attributes are not in individuals, particular attributes are not in more than one individual. This cannot be what Aristotle means."⁴²

Owen believes that he has found textual justification in support of his claim that Aristotle rejects the 'dogma' at Categories, 5, 2a28-33. The passage reads:

"Τῶν δ' ἐν ὑποκειμένῳ ὄντων ἐπὶ μὲν τῶν πλείστων οὔτε τοῦνομα οὔθ' ὁ λόγος κατηγορεῖται τοῦ ὑποκειμένου· ἐπ' ἐνίων δὲ τοῦνομα μὲν οὐδὲν κωλύει κατηγορεῖσθαι ποτε τοῦ ὑποκειμένου, τὸν δὲ λόγον ἀδύνατον, οἷον τὸ λευκὸν ἐν ὑποκειμένῳ ὃν τῷ σώματι κατηγορεῖται τοῦ ὑποκειμένου (λευκὸν γὰρ σῶμα λέγεται), ὁ δὲ λόγος ὁ τοῦ λευκοῦ οὐδέποτε κατὰ σώματος κατηγορηθήσεται."

"But as for things which are in a subject, in most cases neither the name nor the definition is predicated of the subject. In some cases there is nothing to prevent the name from being predicated of the subject, but it is impossible for the definition to be predicated. For example, white, which is in a subject (the body), is predicated of the subject; for a body is called white. But the definition of white will never be predicated of the body."⁴³

On the strength of this evidence, Owen says:

"When Aristotle remarks that an expression such as 'pink' λευκὸν (!) is predicable of the body in which pink is present (2a29-34) he flouts the rule if he has particular subjects in mind, Smith's body as well as body."⁴⁴

Before proceeding to reply to Owen, several things need to be sorted out. So far in this exposition, I have adopted the standard interpretation which sees the primary referent of the term 'predication' to be essential predication, for example, the predication of universals of particulars (knowledge qua universal of some particular 'piece' of grammatical knowledge).⁴⁵ Cases in which generic and specific predications are made of individual substances are also essential, e.g. animal as genus, and man as species are predicated essentially of Socrates. What Owen seems to want to argue is that when Aristotle says that white (or pink) is predicable of the body in which it inheres, he is using the term 'predication' in its primary technical sense: it is clear however, from the text that Owen himself cites, that this is not so. To argue my point, I shall refer back to the word of warning about the use of technical terms which I issued at the beginning of this chapter. At that time, I noted that Aristotle often uses κατηγορεῖται and sometimes ρηθῆσεται as synonyms for λέγεται in its technical sense. But, λέγεται has, as I also noted, two non-technical uses. In one of these cases, Aristotle uses the term λέγεται to ascribe a name to a set of things. This occurs, significantly, in the first line of chapter one: "Ὀμώνυμα λέγεται..." Now, bearing this in mind, let us return to the passage in question. Owen argues from the fact that the word translated as 'predication' is κατηγορεῖται and its variants, and he seems to infer from this that Aristotle is breaking his own rule which separates

predication from inherence. So it would seem. But, what else does the passage suggest? One could easily read the text as suggesting that Aristotle has found yet another use for κατηγορεῖται, namely for nominal predication. We already have essential predication, and accidental predication, why not nominal predication, especially since Aristotle says in that passage: "...there is nothing to prevent the name from being predicated of the subject..."⁴⁶ I will now take a moment to suggest that this particular problem arose because Aristotle was not, at the time of writing the Categories, as sophisticated in the use of his technical terms as he would later become (in my opinion). Much gratuitous difficulty might have been avoided if he had used κατηγορεῖται and ρηθήσεται to mean essential predication, or even the simple phrase καθ' ὑποκειμένου λέγεσθαι. For inherence, he could have used ἐν ὑποκειμένῳ εἶναι exclusively, and for nominal predication he could have employed a defined technical sense of λέγεται. He did not do this consistently, of course, and it is not my intention to rewrite Aristotle. The fact remains, however, that the treatise on categories is a minefield liberally strewn with dangers for anyone not a least minimally conversant with the different meanings which Aristotle's technical terms have. What is astonishing is that a scholar of Owen's stature could have enmeshed himself in such difficulties, and I believe that I have found the reason. In the famous line at Categories, 2, 1a24-25, Aristotle says:

"...(ἐν ὑποκειμένῳ δὲ λέγω, ὃ ἐν τινι μὴ
ὡς μέρος ὑπάρχον ἀδύνατον χωρὶς εἶναι τοῦ
ἐν ᾧ ἐστίν)..."

"...(By 'in a subject' I mean what is in
something, not as a part, and cannot exist
separately from what it is in)..."⁴⁷

To return to our formulation of this conditional, we have

the traditional reading: Y is in x if y is not a part of x and cannot exist apart from x. Owen seizes upon the ambiguity of the Greek and takes the ἐν τινι of 1a24 to refer to something definite, and the τοῦ ἐν ᾧ ἐστίν of a25 to refer generally to something that contains y. Thus, according to what appears to be Owen's view, y is in x if y is not a part of x and if y cannot exist apart from something to contain it. So, as long as there is something to contain it, y can exist apart from x. On this reading, y would be a reproducible particular. Recourse to the text of the Categories makes such an interpretation highly unlikely. For Aristotle, an entity (whether substance or non-substance), is an individual if it is "...ἄτομα καὶ ἐν ἀριθμῷ..."⁴⁸ i.e. if it cannot be divided into what the Scholastics called 'subjective parts'. Take the case of a particular man e.g. Socrates. Socrates is an individual because he is indivisible and one in number. The same is not true of the species 'man', the species has subjective parts (all men) and so the species is not an individual. Now, Aristotle effectively exhausts reality when he says:

"ὥστε τὰ ἄλλα πάντα ἢτοι καθ' ὑποκειμένων
λέγεται τῶν πρώτων οὐσιῶν ἢ ἐν ὑποκειμέ-
ναις αὐταῖς ἐστίν."⁴⁹

"Thus all the other things are either said
of the primary substances as subjects or
in them as subjects."⁵⁰

According to this text, there are two ways in which something can be the subject of something else:

- a) by being that of which something else is said; and
- b) by being that in which something else inheres.

Only (a) captures the way in which one thing can be the subjective part of another. For example, colour (as genus) can be said of blue (as species) because 'blue' is a subjective part

of 'colour', and 'man' is a subjective part of man (as species), and the latter is in turn a subjective part of animal (as genus).

However, Aristotle also seems to be saying that any entity inhering in a subject, must have at least two subjects in which it inheres. Consider the following:

"τὸν γάρ τινα ἄνθρωπον ἐρεῖς γραμματικόν·
οὐκοῦν καὶ ἄνθρωπον καὶ ζῶον γραμματικόν
ἐρεῖς. ὡσαύτως δὲ καὶ ἐπὶ τῶν ἄλλων."51

"For if you will call the individual man grammatical it follows that you will call both a man and an animal grammatical; and similarly in other cases."52

Thus, the entity must inhere in:

- a) an individual substance, and,
- b) a genus of that substance.

This condition is sufficient to make inherence radically different from essential predication. But if inherence marks the way in which one thing is the subjective part of another, there could be no non-substantial individuals, for all non-substances would have subjective parts. But, as the following makes clear, Aristotle is committed to the existence of non-substantial particulars:

"ἅπλῳς δὲ τὰ ἄτομα καὶ ἐν ἀριθμῷ κατ' οὐδενὸς
ὑποκειμένου λέγεται, ἐν ὑποκειμένῳ δὲ ἓνια
οὐδὲν κωλύει εἶναι· ἡ γὰρ τις γραμματικὴ
τῶν ἐν ὑποκειμένῳ ἐστὶ."53

"Things that 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."54

As a general reply to Owen, I will concede that Categories, 2, 1a24-26 can be read as he suggests, but that it is much more likely that Aristotle intended the τοῦ ἐν ᾧ ἐστὶν to take the same reference as the ἐν τινι a line above. It is also probable

that Aristotle may have been a little careless in the way he phrased the theory of inherence, but if it is read as Owen suggests, and other parts of the Categories do not support his interpretation, then the general effect would be to obliterate any real difference between predication and inherence. This is so because, if Owen is right, then items which satisfy the 'said of' relation will also satisfy the conditions for inherence. And it seems quite evident from indications elsewhere in the treatise that Aristotle intends predication and inherence to be clearly distinguished.⁵⁵

"Of the two types of adjective or attribute in Aristotle's list one is said to be "predicable of a subject" and is seen, from a later reference, to be the "common quality" or "quality-universal" of orthodox theory. Thus Aristotle speaks at 2a,31, of a whiteness "present in" white bodies, which is seen to be "predicable of that in which it is present" from the fact that "a body is called white." He denies, however, that the adjectival entity which he mentions is "predicable of a subject." As an adjective of substance, it is "present in" it. But it is an adjective or quality of substance which is not predicable of it. To what can Aristotle be referring? Clearly, if he is taking "predicable of a subject" as synonymous with "universal" there is only one thing he can mean by a quality which cannot be predicated of a subject. He must be referring to a quality which its possessor does not share with other substances, but which, in some sense, participates in the irrecurrability of the *ἰσότης οὐσία* itself. He must, in short, be implying that there is a sense of "quality" in which the qualities of particular things are particular."⁵⁶

J. M. E. Moravcsik adds another dimension to the theory of predication which helps to recapture its ontological as well as its logical dimension.⁵⁷ The position argued is the following:

Moravcsik is concerned fundamentally with the equivocal nature of the term 'predication'. On the one hand, there is predication in the logical sense (predication L), which can mean either: (a) the relation that obtains between the linguistic parts of subject and predicate; or (b) the relation that the mind discovers among its various concepts. On the other hand, there is predication in the ontological sense (predication O), which is another way of saying 'essential predication'. Predication O contrasts with inherence and together they form the two ontological configurations which underlie predication L.⁵⁸ For example, 'man' is predicated L of 'Socrates'; whereas man is predicated O of Socrates. Predication in the first sense is a logical relation, in the second it is an ontological tie. We say that the genus 'animal' is predicable of the species 'man', or even of the individual man, and that this relationship is demonstrable by science. I believe that this is the sense of what Aristotle means when he says: "Genus and species are the only predicates that convey a knowledge of primary substances."⁵⁹ For example, to be able (accurately) to predicate 'man' (as species) of an individual man is to open the door at once to a wide variety of correct predications: e.g. that he is rational, that he is capable of speech, that he is capable of abstract thinking, and so on. That being capable of speech and abstract thought are predications i.e. essential, is clear from the fact that they are properties of man's essence i.e. 'rational animal'.⁶⁰ Conversely, any attribute which only inheres in man, e.g. his colour, is non-essential. Therefore, nothing can be defined or even known if it is described merely in terms of its accidents. To verify this assertion, we need only picture the consternation of someone trying to visualize to himself something described as: next to the post office,

tolerably heavy, sort of flat, green, and bigger than a bread-box.

The view that everything is either inherent in or predicable of substances is exhaustive of reality; and since non-substantial particulars are not predicable of substances, they must form part of the network of inherence. Among modern commentators, the idea that Aristotle intends 'predication' (κατηγορεῖται) most often in its primary technical sense (essential predication) is relatively uncontroversial. What is controversial, however, is the doctrine of inherence. A. C. Lloyd says:

"As for the notion of 'possessing' an accident or of an accident being 'in' a substance, the combination of two things replaces any idea of defining that notion. These are the analogy holding between the accidental categories and the category of substance and the priority of explanation in terms of substance. I doubt if Aristotle had much use after the Categories for the distinction between 'said of' and 'in'. And the intuitive picture that he seems to be relying on is that 'in' must be understood simply as the counterpart in the external world of the relation in speech or thought between a predicate and a subject. I doubt if he thought one could go further."⁶¹

On the other hand, John Thorp says:

"It seems fairly probable that the young Aristotle of the Categoriae saw the list of categories as standing also for the division into two main classes of items: those which are never present in a subject (οὐσία & δεύτερα οὐσία) and those which can be present in a subject (the other categories). Although the language of the Categoriae does not recur, we do sometimes find the later Aristotle using a list of categories to summarize a division into two departments."⁶²

I think that when the early Aristotle of the Categories says that everything is either "...said of the primary substances as subjects or in them as subjects...",⁶³ he believes that this formulation of the distinction between predication and inherence, with substance as its locus, captures the real in both logic and ontology.

Before we leave this topic, I wish to underline again Aristotle's debt to Plato for having raised the problem of predication in a way that permitted Aristotle to be seized by its importance, and to see in it one of the fatal flaws of Platonism. Aristotle required something more convincing than separated Forms and the doctrine of participation. For further differences between Plato and Aristotle, we may note that

"...the belonging of anything to a certain species, is part of the thing's nature, and therefore a necessary rather than an accidental feature of the thing. One of the problems for Plato about the things in the physical world was that all their features were, he thought, accidental. Anything that is so might have been otherwise, and there is no infallible way of saying what anything is. For Aristotle everything has a logically determinate nature and its having of this nature is no accident. Thus in pointing to a man and defining being a man as being specifically identical with that, one is pointing out a necessary truth. If $x =_s y$, then Necessarily ($x =_s y$). This is why things in the physical world can give us knowledge. The necessity of a thing's being what it is can be seen as what makes it unnecessary to postulate any further thing to explain what the original thing is. Plato's belief that sensible things were not logically determinate was what required him to postulate the Forms as things which were logically determinate. In Aristotle's case things already are logically determinate. Every individual is an individual so-and-so. For Felix to be an

individual is already for him to be a cat. And for Socrates, to be an individual is already for him to be a man."⁶⁴

Against Owen, and in support of the traditional view of Aristotle's non-substantial particulars, (as espoused by others including myself), Herbert Granger offers the following:

"I assume that Aristotle developed his understanding of the genus-species schema through an analysis of substantial kinds rather than that of non-substantial characteristics, and therefore I also assume that he first used the genus-species schema in the category of substance. I think these assumptions are reasonable, since the genus-species schema rightly applies to kinds rather than characteristics and probably could not have been articulated except through an examination of kinds, and because Aristotle seems to use kinds rather than characteristics as paradigmatic illustrations of genera and species. Now, since Aristotle did not have available a schema other than the genus-species schema to guide him in his initial analysis of the categories, when he took up his examination of the non-substantial categories, he would, of course, have used in his examination the same genus-species schema he had previously used in his investigation of the category of substance. In this situation it would be very natural for the genus-species schema as it is applied in the category of substance to function as the model for his analysis of the non-substantial categories simply because the genus-species schema was first articulated by him in the category of substance. Since Aristotle limited substances to individuating kinds, the genus-species schema, when applied in the category of substance, yielded series composed not only of genera and infimae species but also clear-cut unsharable particular specimens falling under the infimae species: a certain man, a certain horse. In keeping with the genus-species schema non-substantial categories would be composed of genera, infimae species and unsharable specimens; yet since Aristotle

uses the genus-species schema as it is applied in the category of substance as his basic model, the specimens in non-substantial categories not only would be unsharable, but they would also be particulars - a certain white, a certain knowledge-of-grammar - modeled implicitly on substantial unsharable particular specimens."⁶⁵

What makes this account particularly convincing is that Granger places his emphasis on substance, and in so doing, he is faithful to Aristotle's vision of the world. It will be argued in the next chapter that the Aristotelian conception of substance is the most compelling feature of Aristotle's break with Platonism. For Plato, the highest reality is the system of Intelligible Forms; for Aristotle, it is substance, produced by its co-constitutive principles, matter and form.

To this point, then, we have seen that the analysis of predication and inherence hangs on the analysis of substance. When the genus-species schema that Granger speaks of is applied to particulars in the category of substance, what emerges is an answer to the Platonic question: Why is it that things fall naturally into kinds?⁶⁶ According to the Aristotelian position, if one were to observe two different dogs, for example, a Chihuahua and a Great Dane, we would observe that despite certain differences, they both fall naturally into the species 'dog', a subdivision of the genus 'animal'. On the level of non-substantial particulars, for example, colours, the same analysis can also be used. Colours, unlike dogs, are not particulars in the category of substance, that is, they cannot exist independently of the substances that they are the colours of. Thus, if we call 'colour' a genus, and 'blue' a species of that genus, we can then argue that each of the possibly hundreds of different shades of blue are infimae species of the species blue. Owen

would not accept this view given his interpretation of the definition of inherence, but it seems to be clear that to identify any non-substantial particular is also to identify the substance thanks to which the non-substantial particular not only exists, but through which it is individuated. A particular shade of blue must be the blue of something.

In some legal systems, a person is defined as that which is capable of bearing rights and duties; in Aristotle's system, a substance is partially defined as that which is capable of bearing predications and invariants. What makes Plato's view so objectionable to Aristotle is that (a) Plato will not concede that substances are identical with sensible things;⁶⁷ and (b) if, for example, an animal is defined as something which participates in the Form of Animal, then what happens when we realize that some animals are two-footed and that others are many-footed? Would we not have to say that the Form of Animal, as a 'this' must possess contrary attributes at the same time? And if the Form is not to share in the contrary attributes, then

"...what is the relation implied when one says that the animal is two-footed or possessed of feet? But perhaps the two things are 'put together' and are 'in contact', or are 'mixed'. Yet all these expressions are absurd."⁶⁸

To bring this discussion of predication and inherence to a conclusion, I wish to quote the views of R. E. Allen. I justify the length of the quotation on the grounds that his interpretation of the problem is so close to my own, that there is virtually no way that I could formulate the conclusion in terms other than the ones he uses. Moreover, it is more important to give credit where it is due than to be seen to be 'borrowing' rather too freely from the work of another. Thus, in

closing, I agree with Allen that.

"...predication, in its essential nature, is specific: to predicate is to say what a thing is, to answer the question *ti esti* - in short, to predicate a species, or less informatively a genus of an individual. Behind this logical assumption lay two others which are broadly ontological: that species and genera can exist only if they have individual instances, and that species and genera are exclusive, in that no individual instance of one can be an instance of another. The species dog would not exist if there were no dogs, and no dog is a horse.

Assuming that predication is essentially specific, Aristotle had to account for the fact that much predication is not specificIf predication is by nature specific, how are such predications as these to be explained? They may be explained if we extend the notion of specific predication beyond those natural kinds to which it naturally applies, and attempt to fit it to categories other than substance, where it less naturally applies. But if there are species in categories other than substance, there must also be individual instances of those species; those instances will not run loose about the world, but be tied to primary substances as incapable of existing apart from them. Because of their tie, they will explain how things can be said non-specifically of primary substances: the substance will be named for what is in it. To say that Socrates is a man, then, is to say what he is; to say that he is just, or grammatical is to say what is in him. If Socrates is just, there is an individual instance of justice in Socrates - in him as incapable of existing apart from him. Because that instance is individual and one in number, it cannot be predicated of him; what can be predicated of him is the name of its species, or a paronym of that name. But it is the conjunction of Socrates and the justice in

Socrates, of a separable and an inseparable individual, which is the fact which forms the truth-condition of the statement that Socrates is just."⁶⁹

Throughout this chapter, it has been argued, explicitly or implicitly, that the doctrine of predication and inherence is only intelligible in terms of a substance. Substance is the thread running through the entire discussion. It is the locus not only of all types of predication, but also of the nine non-substance categories as well. It falls to us now, then, to investigate the Aristotelian theory of substance, to examine its kinds, and to show how it may be considered as the concept par excellence in Aristotle's philosophy.

NOTES TO CHAPTER II

1. Cat., 1, 1a1.
2. Ibid., 2, 1a16.
3. Ibid., 5, 2a19-23.
4. J. L. Ackrill, (trans.), Aristotle's Categories and De Interpretatione, (Oxford: Oxford University Press, 1963), p. 6.
5. Cat., 3, 1b10-12, cf. Ackrill, op. cit., p. 4.
6. Ibid., 2, 1a20-1b8.
7. Ackrill, op. cit., p. 4.
8. The peculiar problem posed by this line and those immediately following will be taken up later in connection with the views of G. E. L. Owen.
9. Cat., 5, 3a36. See also, Phys., I, 3, 186b2, and Meta., Z, 13, 1038b15.
10. Prior An., I, 27, 43a25-34.
11. J. Duerlinger, "Predication and Inherence in Aristotle's Categories," Phronesis, 15(1970), p. 183.
12. R. E. Allen, "Substance and Predication in Aristotle's Categories," Phronesis, Supp. Vol., I, 1973, p. 366.
13. See note 3, above.
14. J. C. Kunkel, "A New Look at Non-Essential Predication in the Categories," The New Scholasticism, 45(1971), p. 110.
15. The Review of Metaphysics, 21(1968), pp. 630-655. (Co-authored by G. B. Matthews.)
16. S. M. Cohen, "'Predicable of' in Aristotle's Categories," Phronesis, 18(1973), p. 69.

17. Cat., 3, 1b11; 5, 2a20; 5, 3b4.
18. Topics, I, 5, 101b38.
19. Ibid., 102a32-b3.
20. Post. An., II, 13, 96b3-14.
21. Meta., Z, 6, 1032a5-6. (R. Hope, trans.)
22. Ibid., 1031a17-19.
23. Duerlinger, art. cit., p. 182.
24. Cat., 2, 1b1-3.
25. Duerlinger, art. cit., p. 184.
26. Cat., 5, 2b5-6.
27. Meta., Z, 6, 1031a16.
28. Cat., 5, 2a33; 5, 2b16. See also, G. E. L. Owen, "Logic and Metaphysics in Some Earlier Works of Aristotle," in Aristotle and Plato in the Mid-Fourteenth Century, (I. Düring and G. E. L. Owen, eds.), (Göteborg: Almqvist & Wiksell, 1960), pp. 163-90.
29. Post. An., I, 4, 73b8-15.
30. Meta., A, 30, 1025a13.
31. Ibid., 1025a30.
32. On Propheying by Dreams, 1, 462b34-463a3.
33. Post. An., I, 6, 75a19-21; Meta., K, 8, 1065a7-20.
34. Meta., E, 2, 3, 4; Phys., II, 4; 5, 6.
35. Phys., II, 3, 195a32-35; V, 1, 224a21-23.
36. Ibid., IV, 4, 211a17 ff.; IV, 5, 212b7 ff.; V, 1, 224a26-28; VII, 4, 249b12-14.
37. Cat., 2, 1a22-26.

38. Ackrill, op. cit., p. 4.
39. Ibid., pp. 74-75.
40. "Inherence," Phronesis, 10(1965), pp. 97-105.
41. art. cit., pp. 97 ff.
42. art. cit., p. 100.
43. Ackrill, op. cit., p. 6.
44. Owen, "Inherence," p. 100.
45. W. D. Ross, Aristotle,
(London: Methuen & Co., Ltd., 1964), p. 23.
46. Cat., 5, 2a29.
47. Ackrill, op. cit., p. 4.
48. Cat., 2, 1b6.
49. Ibid., 5, 2b3-5.
50. Ackrill, op. cit., p. 6.
51. Cat., 5, 3a4-6.
52. Ackrill, op. cit., p. 8.
53. Cat., 2, 1b6-9.
54. Ackrill, op. cit., p. 4.
55. Several of the preceding points were raised in discussions which I had with Professors Michael Frede, Mary Louise Gill, Jaakko Hintikka and Charles Kahn, at Florida State University, from January 3-7, 1983.
56. J. R. Jones, "Are the Qualities of Particular Things Universal or Particular?," The Philosophical Review, 58(1949), p. 154.
57. J. M. E. Moravcsik, "Aristotle on Predication," The Philosophical Review, 76(1967), p. 85.

58. art. cit., pp. 86-87.
59. Cat., 5, 2b31.
60. Topics, I, 5, 102a18-30.
61. A. C. Lloyd, Form and Universal in Aristotle, (Liverpool: Francis Cairns, 1981), pp. 42-43.
62. J. W. Thorp, "Aristotle's Use of Categories," Phronesis, 19(1974), p. 245.
63. Cat., 5, 2b4-5.
64. M. J. Cresswell, "What is Aristotle's Theory of Universals?," Australasian Journal of Philosophy, 53(1975), pp. 245-46. [The last three sentences are quoted by Cresswell from Matthews and Cohen, art. cit., p. 635.]
65. H. Granger, "A Defense of the Traditional Position Concerning Aristotle's Non-Substantial Particulars," Canadian Journal of Philosophy, 10(1980), pp. 604-606.
66. See Chapter I, note 100.
67. Ibid., note 112.
68. Meta., Z, 14, 1039b4-6.
69. R. E. Allen, "Individual Properties in Aristotle's Categories," Phronesis, 14(1969), pp. 38-39.

α. It seems that the ordinary meaning of κατηγορία was a judicial-legal one signifying an accusation. For example, in a trial, it was the purpose of forensic oratory, or rhetoric, to attack or defend someone [ἡ δίκη δὲ τὸ μὲν κατηγορία, τὸ δ' ἀπολογία... (Rhetoric, I, 3, 1358b11)]. But, κατηγορία came also to have technical uses in philosophy, e.g. as the predicate of a proposition. For instance, in the Topics, Aristotle says that a predicate taken from a genus can never be applied paronymously to a species [ἡ... ἀπ' οὐδενὸς γὰρ γένους παρωνύμιος ἡ κατηγορία κατὰ τοῦ εἶδους λέγεται... (II, 2, 109b5-6)]; also, in the Prior Analytics, he speaks of the 'universal predicate' [ἡ... τῇ καθόλου κατηγορία... (I, 28, 44a34)]; while the Posterior Analytics

refers to 'the predicates in between' ($\bar{\alpha}\nu\tau\iota\omega\nu\tau\iota\varsigma$ τὰς κατηγορίας τὰς μεταξύ...) (I, 22, 84a1). Further, κατηγορία could also mean the act of predication, e.g. in the Topics, Aristotle gives an example of predication and tells us that, in this case also, the predication (here understood as the act of predication) occurs only once, cf. "...ὥστε ἀπαξ καὶ ἐνταῦθα ἡ κατηγορία γίνεται..." (VI, 3, 141a4).

In the Categories itself, the word κατηγορία occurs only twice in the context of a discussion of whether the contrary of a quality is also a quality:

"Ἐτι δέ, ἐάν τῶν ἐναντίων θάτερον ἢ ποιόν, καὶ τὸ λοιπὸν ἔσται ποιόν. τοῦτο δὲ δῆλον προχειριζομένῳ τὰς ἄλλας κατηγορίας, οἷον εἰ ἔστιν ἡ δικαιοσύνη τῇ ἀδικίᾳ ἐναντίον, ποιὸν δὲ ἡ δικαιοσύνη, ποιὸν ἄρα καὶ ἡ ἀδικία· οὐδεμία γὰρ τῶν ἄλλων κατηγοριῶν ἐφαρμόσει τῇ ἀδικίᾳ· οὔτε γὰρ τὸ ποσὸν οὔτε τὸ πρὸς τι οὔτε ποῦ οὔθ' ὅλως τι τῶν τοιούτων οὐδέν, ἀλλ' ἡ ποιόν. ὡσαύτως δὲ καὶ ἐπὶ τῶν ἄλλων τῶν κατὰ τὸ ποιὸν ἐναντίων." (Cat., 8, 10b18-25)

Cooke (op. cit., p. 75) translates κατηγορίας and κατηγοριῶν as 'categories' and so does Edghill (op. cit., pp. 26-27). Ackrill, however, translates these terms as 'predicates'. Ackrill's rendering is, in my view, the more acceptable one since, in the passage in question, Aristotle is concerned with determining whether justice and injustice are qualities, in other words, whether 'quality' can be predicated of justice and injustice alike. Consequently, in the Categories, this sense of κατηγορία is to be a predicate as opposed to an accusation or the act of predication.

But, if this is unqualifiedly true, viz. that in the Categories κατηγορία means 'predicate', then we are faced with a major problem. The difficulty stems from the fact that while virtually everyone takes the Categories to contain a list of ten 'categories' (including οὐσία), Aristotle forbids οὐσία to be a predicate (e.g. Cat., 5, 2a12-13; a34-35). Thus, if οὐσία is not a predicate, then neither is it a category. But is this really what Aristotle wants to say in the Categories?

For the moment, I shall bracket the question: Is κατηγορία the source of the term 'category'? and follow another line of inquiry. Referring, then, to Categories, 4, which introduces the list of the so-called categories, we find the words: "Τῶν κατὰ μηδεμίαν συμπλοκὴν λεγομένων ἕκαστον ἥτοι οὐσίαν σημαίνει ἢ ποσὸν ἢ ποιόν..." (Ibid., 1b25-26). What we are dealing with here are what "...things said without any combination..." signify (Akrill, op. cit., p. 57; or what "...each uncombined

word or expression..." means Cooke, op. cit., p. 177; or what "Expressions which are in no way composite..." signify Edghill, op. cit., p. 87. Later in the same chapter, Aristotle tells us that: "None of the above is said just by itself in any affirmation, but by the combination of these with one another an affirmation is produced." Ackrill, op. cit., p. 5, cf. Cat., 4, 2a4-67. In consequence, two things need to be distinguished. First is the fact that it is only in combination that words form propositions Cat., 2, 1a16-187, but Aristotle introduces the list of 'categories' as "...things said without any combination..." Ackrill, op. cit., p. 57. We may then suspect that on one level the 'categories' are 'uncombined terms' which, although not predicates, nevertheless signify something. On this reading, the 'categories' as 'uncombined terms', are signifiers and as such, they have an application in logic. On the other side of the coin, we have the ontological entities which the uncombined terms refer to, thus on the other level, a 'category' is what is signified by the uncombined term. Accordingly, my reading of chapter four holds that Aristotle is introducing a list of signifiers which relates back to the fourfold division of entities in chapter two cf. Cat., 2, 1a20-b3. See also, Introduction, Section 3.7

It would be highly gratifying if I could unreservedly accept the notion that 'signifier' and 'signified' exist in a relationship that is mutually dependent and reciprocal, or that the line between 'signifier' and 'signified' is precisely the line between 'logic' and 'ontology'. Unfortunately, I cannot because I believe that there is something that 'comes between' logic and ontology. The clue to this 'something' may be found in the 'logical' notion of 'category', i.e. as an uncombined term which nevertheless signifies something. If we accept the view that the role of the uncombined term is to be the signifier of what is signified, then have we not omitted an important element of the problem, namely, the question: What gives the uncombined term its significance? An indication as to the answer appears in the De Interpretatione:

"Spoken words are the symbols of mental experience and written words are the symbols of spoken words. Just as all men have not the same writing, so all men have not the same speech sounds, but the mental experiences, which these directly symbolize, are the same for all, as also are those things of which our experiences are the images." Ibid., 1, 16a3-7.7

I cite this text in justification of my belief that the spoken and written words directly symbolize 'mental experiences'

or 'mental affections' (παθήματα τῆς ψυχῆς), and that the 'mental experiences' directly symbolize the objects in the world. Thus, although language is significant by convention, the mental images and concepts which language symbolizes are not conventional nor are the objects in the world. We see, then, that words alone, as uncombined terms, are significant but that their significance is derived from the fact that they refer to 'mental experiences'. The validity of this 'mental experience' is conferred by the object in the world which the 'mental experience' is the image of. In consequence, I cannot view 'signifier' and 'signified' as two sides of the same coin because there is something which intervenes, i.e. the 'mental experience', concept, or image, which gives the uncombined term its significance. Pierre Aubenque credits Simplicius with a view that is very similar to my own, namely that: "...les sons ne deviennent signifiants que dans la mesure où ils sont animés par un acte de l'esprit, une "pensée" (ennoia, noëma) qui seule peut fonder un vouloir dire." [Aubenque, *op. cit.*, p. viii] In Chapter V of this thesis, I shall take up the question of what I call 'epistemological categories'. In this chapter, we shall see how the process of concept formation is a process of induction proceeding from categorially-structured ontological individuals to a system of 'epistemological categories', i.e. the highest universals, and that these latter confer significance on the 'logical categories'. Here again, I may note the similarity of my view to that of Simplicius. As Aubenque says: "Simplicius, faisant la synthèse des interprétations antérieures, évite donc de fixer de façon unilatérale le lieu où est à chercher le statut des catégories. Selon lui, ce statut se trouve à l'intersection de la logique, de l'ontologie et de la gnoséologie." [Ibid.]

Returning now to my general argument that the tone of the treatise Categories is not 'logical', several other points need to be made. We have already established that in the text from Categories, 8, quoted above, the term κατηγορία is to be understood as 'predicate'. Given that the notion of predication is primarily logical, this would appear to militate against my view that the Categories is not a logical treatise. We must therefore determine in what sense 'category' can mean 'predicate' and in what sense it cannot.

Let us begin by saying that, very simply, a predicate is a significant term which, when combined with a subject, affirms or denies an attribute of that subject. On this reading, no uncombined term can be called a predicate. Further, if we speak of the categories in their logical aspect as signifiers, then they are still not predicates because a predicate, by definition, does or does not bring a certain determination to a subject. Thus a predicate is a word used in combination with a subject, whereas the 'logical categories' are terms said

without any combination.

Another reason to doubt that 'categories' are, strictly speaking, 'predicates' emerges from the distinction between predication and inherence. In the Categories, one of the uses of κατηγορεῖσθαι is to express an essential relationship between a predicate and its subject. In short, essential predication means that not only the name of the predicate, but also its definition, will be predicable of the subject necessarily [cf. Cat., 5, 2a19-21]. For example, both the name and the definition of the species 'man' are predicable of the individual man [Ibid., 2a, 22-27]. However, an individual man or horse, as members of the 'category' of οὐσία, in other words, as primary substances, are not predicates [Ibid., 5, 2a11-13]. Further, according to the Categories, whatever is not a relationship of predication is a relationship of inherence [Ibid., 5, 2a34-b6]. In other words, whatever is not predicated essentially of a subject - (species and genera are predicated essentially) - is 'in' it (the nine non-substance 'categories' are 'in' substance). Thus Aristotle is right in maintaining that οὐσία can be neither a predicate nor an inherent [Ibid., 5, 2a34-36], but we also see that in their relationship to οὐσία, the nine non-substance 'categories' cannot be predicates either because the relationship they bear to οὐσία is not essential. These, then, are the reasons why I believe that the 'categories' of the Categories are not predicates.

However, there is a way in which the non-substance 'categories' can be called 'predicates', but this involves an extension of the doctrine of essential predication. In themselves, the 'non-substance categories' of the Categories are 'things' signified, moreover, they are signified as inhering in substance. Thus, in this sense, no 'category' is a predicate. But if we move away from the ontological notion of 'category' as a 'thing' signified to the logical notion of 'category' as signifier, then the 'non-substance categories' can assume the predicate position for items lower down in their own categorial tree. For example, 'quality' as an 'ontological category' can only inhere 'in' a substance, it can never be predicable of it. Recalling the notion that predication, in its primary sense, means the essential and necessary predication of the name and the definition of the predicate of a subject, we see that:

"...as for things which are in a subject,
in most cases neither the name nor the
definition is predicated of the subject.
In some cases there is nothing to prevent
the name from being predicated of the sub-
ject, but it is impossible for the defini-
tion to be predicated. For example, white,
which is in a subject (the body) is predi-

cated of the subject; for a body is called white. But the definition of white will never be predicated of the body." [Ibid., 5, 2a27-32].

The only time that 'white' and other qualities can assume the predicate position (strictly speaking) is when they express an essential relationship between themselves and items lower down in their own categorial tree, as said above. For example, 'white' is 'in' the body, but it is 'predicable' in name and definition of the white in the skin and the white in the eyes. We may even say that the 'category' of quality is predicable of the 'genus' colour which is predicable of the species white which is predicable of this particular white. The 'genus-species' relationship, as found in the non-substance 'categories', can be seen to have been inspired by the genus-species relationship in the 'category' of substance, i.e. on the predication of the secondary substances of primary substances.

We have, finally, two different notions of 'predicate'. One is a notion which is predicable in name and in definition of items lower down in its own categorial tree (e.g. 'animal' of 'man', and 'quality' of 'justice'), this is essential predication. The second is more common and less exact than essential predication and it is the one mentioned earlier, i.e. it is the type of predication in which the name of the predicate but not its definition are predicated of the subject. In this particular case, the 'predicate' is a significant term which, when combined with a subject in a proposition, expresses an attribute (or the lack of one) of a subject. In the proposition 'the ball is red', it may be argued that 'red' is predicated of 'ball', whereas strictly speaking, the relationship expressed is not one of predication, but rather, one of inherence.

In the last analysis, the argument here is not about whether there are 'logical categories' or whether such 'categories' are 'predicates'; I see no difficulty in affirming either, but I would be more willing to make this affirmation in the context of Topics, I, 9, than in the context of Categories, 4. The reason, simply, is that the primary meaning of 'category' in the Categories appears to be the 'thing' signified and, as such, an entity cannot be a predicate.

We have now seen how κατηγορία can, in the context of the Categories, mean 'predicate'. But this notion is derivative and secondary to the primary one which is that a 'category' is a 'thing' signified and not a signifier. In the sense of 'things' signified, οὐσία and the others are not predicates. Now, given that they are not predicates, we still want to be able to call them 'categories' and we are faced with the embarrassing fact that the only two times that κατηγορία appears

in the Categories, it means 'predicate'.

To this difficulty, there are at least two possible solutions. For the first, let us recall that at the beginning of Chapter II of this dissertation [p. 53], I note that the second sense of the verb κατηγορέω is 'to signify' or 'to indicate'. The notion of signification is crucial here since the list of 'categories' in Categories, 4, is introduced in the words: "Of things said without any combination, each signifies either substance or quantity..." [Ackrill, *op. cit.*, p. 5, cf. Cat., 4, 1b25-26]. In the original Greek quoted earlier [p. 83a], we saw that the term translated as 'signifies' is σημαίνει which is part of the verb σημαίνω which has as one of its meanings 'to signify', as does κατηγορέω. Thus, there would be nothing unusual in the suggestion that the signified should have the same name as the signifier. We could, then, on this interpretation argue that 'category' stems from κατηγορέω.

The second possible solution involves the term κατηγορία itself, only this time we shall consider it not as meaning 'predicate', but rather in its original sense of a charge or accusation. In this sense, κατηγορία could not only mean the act of making the charge, but also the charge itself. Thus, by extension, κατηγορία in the Categories could not only mean the signifier but also the signified. On these grounds, we would be justified in talking about both 'ontological' and 'logical' categories. I would add parenthetically, that throughout the subsequent history of philosophy, not many people appear to have noticed that these are not, strictly speaking, Aristotle's own terms.

β. In some places, Aristotle seems to use λέγεται interchangeably with κατηγορεῖται, i.e. that the relation expressed by both these terms is similar, e.g. "...man is said of a subject /καθ' ὑποκειμένου λέγεται/, the individual man..." [Cat., 5, 2a22], while several lines later, he says: "...animal is predicated of man /τὸ ζῷον κατὰ τοῦ ἀνθρώπου κατηγορεῖται/..." [Ibid., a37]. The problem with these terms is that neither always refers to an essential relationship, i.e. 'predication' in the strict sense. Aristotle gives an example of this when he says: "...white, which is in a subject (the body), is predicated of the subject; for a body is called white..." [Ackrill, *op. cit.*, p. 6], cf. "...τὸ λευκὸν ἐν ὑποκειμένῳ ὃν τῷ σώματι κατηγορεῖται τοῦ ὑποκειμένου (λευκὸν γὰρ σῶμα λέγεται)..." [Cat., 5, 2a31-33]. Thus, whenever κατηγορεῖται and λέγεται are used to express the same type of essential relationship, they may be taken as meaning 'predicated of' and 'said of' and that no significant difference exists, but only in this context.

γ. This problem is, admittedly, largely theoretical since the logical conception of species depends upon the ontological existence of species. The species perpetuates itself formally through the generation of new individuals possessing the same form as other members of the species. In this sense the form is eternal and thus the species is because Aristotle presupposes that members of the species will always exist.

CHAPTER III

ARISTOTLE ON SUBSTANCE

The purpose of the present work, as its title indicates, is to attempt to see if there is another methodological function to which Aristotle's categories can be put. As we shall observe further on, pride of place within the system of categories itself belongs to substance. With the possible exception of the theory of the active mind in De Anima III, 5, I don't think that there is any other aspect of Aristotle's philosophy that has aroused more controversy than the doctrine of substance. My own work in the present dissertation would have been much easier if I had been able to confine myself to the relatively simple account of substance as given in the Categories, but Aristotle has a good deal more to say on the subject elsewhere, and I am obliged, accordingly, to present the other conceptions in a way that will permit a coherent treatment of what I dare to call Aristotle's 'unified theory of substance'.

In Aristotle's philosophy, there are a number of what might be called 'conceptual frameworks': the physical, the metaphysical, the psychological, and so on, and in the following chapter I will give an interpretation of the theory of categories that will give us a perspective from which to view the role of the categories in each 'framework'. It is not immediately clear whether Aristotle thought of these conceptual frameworks as representing different ways of looking at the world, i.e. in the sense that these different sciences study certain particular aspects of the world in isolation from the others, or whether, in the final analysis, he would have argued that however many ways of looking at the world there are, there is only one world, and that divisions made by the mind do not repre-

sent divisions within reality. Some commentators have succumbed to the temptation to believe that the conceptual pairs essence-accident, matter-form, potentiality-actuality and the rest represent precursors of modern dualist thinking. This, in my view, is a fundamental error. These pairs are conceptually different aspects of the one world, which although capable of separation in the mind, are inseparable in reality.

"There is a sense...in which [Aristotle] does approach the world as one world. He treats it as a single order of nature with no impassable barriers, with none of the cleavages that have characterized modern thought at least since the seventeenth century, and modern philosophy since Descartes: the partition of man from nature, spirit from matter, mind from its objects, in one or another explicit or subtle form."¹

This chapter will deal with the problem of substance in Aristotle's philosophy. This theory is, in many ways, the answer to the Platonic doctrine of Intelligible Forms, it is the means by which the Platonic Form "...is brought down from its heaven of unchanging reality, and plunged in the flow of time and sensible existence."² And as Ross says: "The primacy of individual substance is one of the most fixed points of Aristotle's thought - the point at which he most clearly diverges from Plato's doctrine."³

In this chapter, I wish to say a word about the derivation of the term 'substance'. I shall also sketch Aristotle's earliest treatment of substance in the Categories, contrast it with the later doctrine of the Metaphysics, and conclude with a few observations on the primacy of substance in the Aristotelian system. The doctrine that is central to Aristotle's 'one world' theory is substance, and Aristotle's 'substance' has at least this in common with ancient Rome: that all roads lead to it.

1. A Note on the Derivation of Terms.

In contemporary English and French, the term 'substance' is derived from two Latin antecedents: 'sub' ('under'), and 'stare' ('to stand'). This is a faithful rendering of the Greek ὑπόστασις which is formed by ὑπο ('under'), and ἵστασθαι ('to stand'). The term refers to the underlying supporting substratum of change (ὑποκείμενον), but also to the individual subject of change (οὐσία). Οὐσία in turn can mean: a) being, b) substance, or c) essence; while ὑποκείμενον, depending upon the context can mean: a) the concrete thing, b) the substratum, or c) the subject. In the preceding chapter, we had much experience of ὑποκείμενον as subject. Finally, Aristotle adds that the word 'substance' (both οὐσία and ὑποκείμενον) can be taken to refer to four things: a) the essence (τὸ τί ἦν εἶναι); b) the universal (καθόλου); c) the genus (γένος); and d) the substratum (ὑποκείμενον).⁴ We shall have occasion to discuss the competing claims of these four to the title of substance in its primary meaning. But first, we must be aware that in the accounts given of substance in the Categories and in the Metaphysics, Aristotle might be suspected of inconsistency for, on a first reading, it may seem that the doctrine finally arrived at in the central books of the Metaphysics⁵ bears little resemblance to his earlier account. We must attempt to see whether there is in fact an inconsistency, or whether the theory of substance in the Metaphysics simply represents a response to a different question. I do not believe that I would be seriously compromising the outcome of my discussion if I reveal in advance that I think that there is no serious inconsistency, but rather that the doctrines of the Categories and the Metaphysics are responses to two different sets of problems, and that I do not

think that Aristotle intended them to exclude each other.

However, not to get too far ahead of ourselves, let us begin our treatment of substance with the account given in the Categories. For all that we know to the contrary, the discussion of substance in chapter five of that work represents Aristotle's earliest views on the topic in question, and is certainly no less interesting on that account.

2. The Early Reaction Against Plato: The Doctrine of the Categories.

We have already sketched the Platonic theory of Intelligible Forms, and the uses to which Plato seems to have felt they could be put in explaining the phenomena of the sensible world. We have also noted Aristotle's lack of sympathy with this view, which left him with a fundamental problem: If the world of the Forms does not exist, then what is the ultimate ground of the real? To a man of his realistic and empirical temperament, would he not be left with the sensible world itself? And if this is the case, then he must find a way to make the sensible world account for its own being and intelligibility without having recourse to a transcendent world of eternal archetypes. In my view, the tone of the Categories is empirical, he is describing what he sees in the world, the ways in which these things may be said to 'be', and the preliminary means by which they may be explained.

"In the Categories, an early work of Aristotle, we find the first account in the history of philosophy of the ontological structure of the individual thing."⁶

Prior to Aristotle, philosophers and physicists had been very interested in explaining the nature of the physical world, but generally, their efforts had taken the form of enunciating

complex cosmologies which saw the world in broad sweeps of opposing forces, or monistic materialisms, or transcendent Forms. The account given by Aristotle in Metaphysics A, 6,⁷ is tinged with a certain incredulity that these eminent thinkers could have thought as they did. I agree with the author quoted above, that the Categories represents something of a radical departure from what had been done in philosophy up to that point. Let us now take a closer look at the doctrine of substance in the Categories, and see if indeed Aristotle is concerned with the being of individual things.

Compared to the complexities of the Aristotelian position on substance in the Metaphysics and related works, the view enunciated in the Categories is simple and elegant. Without ever mentioning Plato by name, Aristotle seems to have believed that he had found, contra Plato, an immanent and therefore non-transcendent basis for his conception of real in substance. What, then, is substance?

"Οὐσία δέ ἐστιν ἡ κυριώτατά τε καὶ πρώτη καὶ μάλιστα λεγομένη, ἢ μήτε καθ' ὑποκειμένου τινὸς λέγεται μήτ' ἐν ὑποκειμένῳ τινί ἐστιν, οἷον ὁ τις ἄνθρωπος ἢ ὁ τις ἵππος. δεύτεραι δὲ οὐσίαι λέγονται, ἐν οἷς εἶδεν αἱ πρώτης οὐσίαι λεγόμεναι ὑπάρχουσι, ταῦτά τε καὶ τὰ τῶν εἰδῶν τούτων γένη, οἷον ὁ τις ἄνθρωπος ἐν εἶδει μὲν ὑπάρχει τῷ ἀνθρώπῳ, γένος δὲ τοῦ εἶδους ἐστὶ τὸ ζῷον. δεύτεραι οὖν αὗται λέγονται οὐσίαι, οἷον ὁ τε ἄνθρωπος καὶ τὸ ζῷον." ⁸

"...that which is called a substance most strictly, primarily, and most of all - is that which is neither said of a subject nor in a subject, e.g. the individual man or the individual horse. The species in which the things primarily called substances are, are called secondary substances, as also

are the genera of these species. For example, the individual man belongs in a species, man, and animal is a genus of the species; so these - both man and animal - are called secondary substances."⁹

I believe that Aristotle is here launching a two-pronged attack on the theory of Intelligible Forms. On the one hand, he is arguing for the ontological primacy of primary substance; for Plato, ontological primacy rested with the separated Forms. In the quotation from Categories, 5, above, Aristotle identifies primary substance in exactly the same terms found near the end of chapter two,¹⁰ i.e. in the fourth distinction under predication and inherence. Primary substance is that which is neither 'said of' nor 'in' a subject. The examples, the individual man or horse, are also the same. We may be permitted to conclude that Aristotle is drawing directly from the sensible world for his examples of primary substance. We may also add that a primary substance is an individual, concrete 'this', a definite 'something' revealed through sense experience.

On the other hand, Aristotle was undoubtedly aware of the Platonic theory of predication, and the role which the Forms are supposed to play when we say something of something else. Without giving away too much of the discussion in the Appendix, I shall content myself, for the moment with observing that the doctrine of secondary substance appears to be an early attempt to eliminate the separation introduced by Plato between the thing and what may be predicated of it universally. This is not to say, however, that Aristotle believed that universals, as such, were 'in' things. Rather, the extension of the concepts 'species' and 'genus' is sufficient to guarantee a 'specific identification' between them and the concrete particulars which are their members. There is no question of Aristotle believing that species and genera existed in any sense 'apart'

from their members. Given his intense suspicion of any type of transcendent reality, it is not difficult to see why he would want to find a way to explain what a thing is, and at the same time to be able to say it of more than one thing. Unlike Plato, Aristotle has no notion of the 'whatness' of a thing existing in any sense apart from the thing itself, so that there is not much point in arguing that Aristotle's secondary substances are merely Platonic Forms in disguise. But, having said this, the fact remains that the doctrine of secondary substance is highly controversial. For example, speaking of the Categories, D. R. Cousin says:

"When Aristotle speaks of the substance or essence of a thing, he may indeed mean by the "thing" a primary substance, but he is much more often thinking of a species, which he constantly treats as a logical subject, and which owing to its peculiar relation to the concrete individual or primary substance, comes to acquire in Aristotle's mind a similar ontological status."¹¹

This commentator is making Aristotle's doctrine rather more difficult than it need be. For one thing, he attributes to the Categories an identification of substance with essence, that is not fully elaborated until Metaphysics 2, 4 and 6. Again, how, for example, can the author claim to know that Aristotle is thinking of species rather than individuals in the category of substance? And again, the author does not explain how Aristotle can attribute to species "...which he constantly treats as a logical subject..."¹² a similar ontological status to that of primary substance. The author seems to be suggesting that Aristotle cannot distinguish between a species and an individual member of that species. As A. C. Lloyd remarks:

"What is lacking, one might prefer to think, is a proper distinction between the species as distributed in its members and as predicated of them or, if this is the same thing, in extension and intension."¹³

I find no evidence in the Categories to support Cousin's interpretation. The author may, of course, be thinking of the doctrine of the Metaphysics in which substance as form (closely allied with species as its vehicle) is seen to be substance in a higher sense than the concrete particular of the Categories. But if I am correct in this assumption, then the author is guilty of an anachronism by attempting to read the conclusion of the central books of the Metaphysics into the much earlier work on categories. At any rate, without specific indications to the contrary, it would be unwise to take the assertions of the Categories at anything but their face value.

A further comment on the doctrine of secondary substances is provided by David Sachs.¹⁴ Sachs is concerned with the apparent asymmetry between the doctrines of the Categories and the Metaphysics. Taking the fairly standard line that the Categories is in essence concerned only with logic, whereas the Metaphysics deals primarily with ontology, he attempts to argue that secondary substance has no ontological status whatever in the Categories. This, if true, would at least be consistent with Aristotle's denial in the Metaphysics that universals and genera can be substances.¹⁵ But, a great deal must be granted to make Sachs' position true. In the first place, he must prove that the Categories is indeed concerned with logic to the exclusion of ontology; secondly, he must explain how something (a species) can be ontologically distributed among its members while having no ontological status itself. Not only does Sachs not address himself formally to these considerations, he even

goes so far as to say:

"In the Metaphysics Aristotle denies that any universals are substances; in the Categories the characterizations 'secondary substance' and 'primary substance' refer to terms, and not to substance in an ontological sense."¹⁶

It is very arguable that this assertion, while perhaps not manifestly false, at least misses an important point. Throughout the text of the Categories, Aristotle is most often talking about things (ὄντα).¹⁷ In fact, in the very first chapter, the discussion of ὁμώνυμα, συνώνυμα, and παρώνυμα makes it clear that he is talking about things, whereas we moderns would say that it is words which are homonyms, synonyms or paronyms. Be that as it may, Sachs takes as his point de départ the interpretation that the categories are uncombined words, that they are 'terms'. On one level this is true, but if we look at the first sentence of chapter four, which introduces the list of categories, we find:

"Τῶν κατὰ μηδεμίαν συμπλοκὴν λεγομένων
ἕκαστον ἥτοι οὐσίαν σημαίνει..."¹⁸

This passage has several translations, including the following:

"Each uncombined word or expression means one of the following:- what (or Substance) ..."¹⁹

"Expressions which are in no way composite signify substance..."²⁰

"Of things said without any combination, each signifies either substance or..."²¹

The translations are satisfactory in varying degrees. In my view, Cook's is the least, and Ackrill's is the most. But, whatever one's preference, all three bring out clearly that what Aristotle is talking about are things, they are what the uncombined expressions signify, what they refer to, what they mean. In other words, their objective referents. It is not,

to contradict Sachs, a discussion of terms qua terms. His position is even further undermined by G. R. G. Mure, who says:

"Mr. Sachs would appear, like too many modern logicians, to suppose that because formal logic starts from the Prior Analytics, Aristotle divorced logical form from all reference to content. He did not."²²

To return to the question of the apparent asymmetry between the Categories and the Metaphysics on the subject of secondary substance, in the latter, secondary substance, as such, is not mentioned, but although Aristotle does not deny that genera are ineligible to be called substance in the highest sense, he does not thereby say that they are ineligible to be called substance in any sense. It would be instructive to return to the Categories and to see the principal reason that Aristotle has for saying that species and genera are secondary substances. On the face of it, Aristotle does not call species and genera οὐσίαι unconditionally. He calls them δεύτεραι οὐσίαι. Presumably to the extent that they are called substances at all, they are so in a secondary and derived sense. I believe that Aristotle had what he saw as a compelling reason for saying that species and genera are substances in a certain sense, and that is because they serve as the subjects of predication, which is an essential element of the definition of primary substance in the Categories. Aristotle says:

"Τῶν δὲ δευτέρων οὐσιῶν μᾶλλον οὐσία τὸ εἶδος τοῦ γένους· ἔγγιον γὰρ τῆς πρώτης οὐσίας ἐστίν. ἐὰν γὰρ ἀποδιδῶ τις τὴν πρώτην οὐσίαν τί ἐστὶ, γνωριμώτερον καὶ οἰκειότερον ἀποδώσει τὸ εἶδος ἀποδιδοὺς ἢ περὶ τὸ γένος, οἷον τὸν τινὰ ἄνθρωπον ἀποδιδοὺς γνωριμώτερον ἢ ἀποδοῖν ἄνθρωπον ἢ ζῷον ἀποδιδοὺς· τὸ μὲν γὰρ ἴδιον

μᾶλλον τοῦ τινὸς ἀνθρώπου, τὸ δὲ κοινό-
τερον. καὶ τὸ τὶ δένδρον ἀποδίδους γνω-
ριμώτερον ἀποδώσει δένδρον ἀποδίδους ἢ
φυτόν.

"Ἐτι αἱ πρῶται οὐσίαι διὰ τὸ τοῖς
ἄλλοις ἅπασιν ὑποκεῖσθαι καὶ πάντα τὰ
ἄλλα κατὰ τούτων κατηγορεῖσθαι ἢ ἐν αὐταῖς
εἶναι διὰ τοῦτο μάλιστα οὐσίαι λέγονται.
ὥς δέ γε αἱ πρῶται οὐσίαι πρὸς τὰ ἄλλα
πάντα ἔχουσιν, οὕτω καὶ τὸ εἶδος πρὸς τὸ
γένος ἔχει· ὑπόκειται γὰρ τὸ εἶδος τῷ
γένει· τὰ μὲν γὰρ γένη κατὰ τῶν εἰδῶν κα-
τηγορεῖται, τὰ δὲ εἶδη κατὰ τῶν γενῶν οὐκ
ἀντιστρέφει. ὥστε καὶ ἐκ τούτων τὸ εἶδος
τοῦ γένους μᾶλλον οὐσία."²³

"Of the secondary substances the species is
more a substance than the genus, since it
is nearer to the primary substance. For if
one is to say of the primary substance what
it is, it will be more informative and apt
to give the species than the genus. For ex-
ample, it would be more informative to say
of the individual man that he is a man than
that he is an animal (since the one is more
distinctive of the individual man while the
other is more general); and more informative
to say of the individual tree that it is a
tree than that it is a plant. Further, it
is because the primary substances are sub-
jects for all the other things and all the
other things are predicated of them or are
in them, that they are called substances
most of all. But as the primary substances
stand to the other things, so the species
stands to the genus: the species is a sub-
ject for the genus (for the genera are pre-
dicated of the species but the species are
not predicated reciprocally of the genera).
Hence for this reason too the species is
more a substance than the genus."²⁴

It is quite clear from this text that Aristotle thinks that se-
condary substances (species in particular) can serve as subjects
for predication. One can, with little difficulty, make essential

predications of ~~a~~ species without necessarily referring to any particular, concrete individual who may be a member of that species. For example, we do not necessarily have to be thinking of Fido to know that the genus Canidae is predicable of the species 'domesticated canine'.

In the following section, we shall see that Aristotle ultimately accords the title of substance in its highest sense to the form or essence, but this is hardly a secret since Aristotle has already given an indication of it in the text from the Categories quoted above. In the relevant passage, he says: "...if one is to say of the primary substance what it is, it will be more informative and apt to give the species..."²⁵ The essence, as vehiculated by the species, is what the thing is, and this is how Aristotle discusses the matter in the Metaphysics.²⁶ What should be borne in mind at this point, however, is that the definition of substance in the Categories emerges from a different conceptual analysis. In this work, the notion of substance arises from the predication-inherence analysis, or what would later be called the essence-accident analysis. The primary substance is that whose 'being' is formally determined by the essence which acts as an organizing principle of the matter. The substance which results from the union of the formal and material principles is one of which essential predications can be made, and in which non-substantial particulars inhere.

"La substance proprement dite, c'est ce qui est toujours sujet et jamais attribut, de même que les /autres/ catégories sont ce qui est toujours attribut et jamais sujet. Mais les choses de moins en moins concrètes qui s'étagent depuis la substance jusqu'aux catégories inclusivement, ont beau ne pas être des réalités totales, des substances complètes, ce sont pourtant des réalités. Il y a des degrés dans la réalité: l'espèce, par exemple, à laquelle il ne manque plus

que des caractères accidentels pour être un individu, - l'homme, auquel il ne manque que l'addition de telle taille ou de telle couleur pour être Callias ou Socrate, - est une partie et peut-être la principale, de la réalité de Callias ou Socrate. Elle n'a pas d'existence indépendante et en soi, mais elle existe néanmoins. En étendant un peu le terme, nous pourrions donner à ces réalités plus ou moins appauvries, le nom de substances secondes. Et cette extension est légitime. Car le caractère fondamental de la substance est d'être en soi, c'est-à-dire d'être un sujet. Or ce qui est attribut et en autre chose par rapport à la substance au sens étroit, peut être, à son tour, sujet et en soi par rapport à ses propres éléments."²⁷

Octave Hamelin agrees that it is only the secondary substances that transmit the essence:

"Il n'y a pas d'ailleurs que les espèces et les genres qui soient des substances secondes, parce que seuls ils expriment l'essence des substances premières, quand on dit par exemple de tel homme, substance première, que c'est un homme, un animal; au contraire, des termes tels que blanc, (il) court etc. ne donnent pas l'essence."²⁸

In the last analysis, then, we may say that secondary substance

"...is the abstract, universal substance which is predicated of the individual and which constitutes the first logical category; for second substance alone declares what the subject, that is, first substance, is. Although this second substance, for example, man, may become the logical subject of other logical predicates, it is never in the last analysis their logical subject, for ultimately it must be individualized and concretized to give an adequate idea of what the subject truly is, and it then becomes a predicate, as in the statement: This is a man."²⁹

Thus, secondary substance is the only kind of substance that can be said to be a predicate. The secondary substance

'species' is predicable of the primary substance, man because it tells what the primary substance is. But there is more involved in this relationship than logic, the reason why the mind can abstract the notion of 'man' as species from the multitudinous individuals involved in its logical 'intension'³⁰ is because the species is already ontologically extended, or distributed among its members. It should not be surprising that to think logically and truly about the world involves an accurate representation of the relationships that actually occur in the world. Thus, for Aristotle, the notion of substance is not just a notion, it is something real and concrete, and because man is a knowing animal, he has the mental apparatus that permits him to mediate between the world of logical universals, and the world of concrete particulars. Somewhat along these lines, Abraham Edel makes a telling comment when he says:

"It is sometimes suggested that the logical idea of substance simply reflects the grammatical distinction of subject and predicate in Indo-European languages. If, for example, the search for substance had begun in a language in which everything was built around a verb center, with an array of tense, location, and participant indicators, a philosopher might have wanted to assert the ultimacy not of substances but of events. Perhaps so. But Aristotle's subject-predicate logical analysis did not prevent him from working out a dynamic conception of actuality whereby different participants in an activity could find a common fulfillment; nor did it keep him from distinguishing predicates that were secondary substances involved in answering the question What is it? from those that were qualities present in an already identified subject. In any case, the notion of substance clearly embodied more than logical elements. For example, the idea that substratum endures over time, but attributes succeed one another, emerged in the analysis of change."³¹

Whether one chooses to call secondary substances such in a logical sense, i.e. only by analogy, or whether one prefers to grant them an ontological status characterized by gradations of substantiality, with primary substances being substances in the highest or 'primary' sense, and species to a lesser extent, and genera still less; the fact remains that Aristotle did, at least in the Categories, have a doctrine of secondary substance. The fact that he does not refer to this theory in precisely these terms in the Metaphysics does not argue against the validity of his earlier insight, nor does it prove that the theory was later superseded or indeed abandoned altogether. The answer may be as simple as saying that Aristotle did not raise the doctrine of secondary substance in the Metaphysics because, as we shall see, his discussion of substance in the central books emerged from a different set of considerations, and further that he may have viewed the matter as already having been settled in the Categories, and therefore being in no further need of ventilation.³²

3. The Primary Meaning of the Term 'Substance': The Doctrine of the Metaphysics.

In the note on the derivation of terms,³³ we saw that the word 'substance' can have four principal referents, in other words, both οὐσία and ὑποκείμενον can refer to four things: a) the essence (τὸ τί ἦν εἶναι); b) the universal (καθόλου); c) the genus (γένος); and d) the substratum (ὑποκείμενον). Having established these distinctions, Aristotle inquires into the nature of each, beginning with the fourth one i.e. the substratum. He devotes most of the argument in Metaphysics Z, 3, to showing that if we identify the substratum with matter (ύλη), then neither can be called substance. Régis Jolivet explains why:

"...si l'on définit la substance comme substrat ou sujet, on en viendra naturellement à l'identifier avec la matière qui reste, lorsque, par la pensée, on supprime tous les attributs. Mais, à le bien considérer, il est impossible que la matière soit la substance, car d'une part, elle ne peut absolument pas exister sans détermination, et, d'autre part, elle n'est pas, par elle-même ceci ou cela, c'est-à-dire individuelle, comme nous savons que doit l'être la substance /Meta., Z, 3, 1029a20/. En réalité, la forme, et ce qui résulte de l'union de la matière et de la forme, sont bien plus substances que la matière."³⁴

This argument is consistent with Aristotle's view that while all sensible substances have matter,³⁵ matter in itself is unknowable,³⁶ and that the only thing which can come-to-be is the combined form-in-matter. As he himself says:

"It is evident...that what we have called the form or essential being (οὐσία) is not produced, but that it is the combined form-in-matter that is produced, and that in everything that is produced there is matter, and that any object is, on the one hand, matter and, on the other hand, form..."form" means a "such" (τοιοῦτος) and is not a "this" (τόδε) or a definite particular existence. And the maker or begetter makes or begets a this out of a such; and what has been begotten is, then, a "this-such."³⁷

While in the Physics, he says: "The truth is that what desires the form is matter....For my definition of matter is just this - the primary substratum of each thing, from which it comes to be without qualification..."³⁸

Edel underlines the importance of the concept of matter in Aristotelian physics, and speculates on its origins:

"Most influential...in orchestrating the emergence of the concept of matter is the idea of substratum or subject in the analysis of change.

...This is consolidated through a demand for a persistent element in change. In the simpler kinds of changes, such as quantitative growth or qualitative alteration or motion, ordinary experience identifies a subject undergoing the change and ordinary language formulates it correspondingly. Thus, the child is first small and then big, a cheek is now white and then red, a ball is now here and then there. In short, we think of the subject or substratum undergoing the change from one state to another. The substratum becomes identified as that matter which in the change acquires the end-state as the form."³⁹

The possibility that matter may be substance has now been suggested and rejected. And so, we turn to another candidate and consider the claim of the universal to be substance. That this is not the case either is clear from the argument of Metaphysics 2, 13, where, among other considerations, Aristotle notes the following:

"...it seems impossible that any universal term should be the name of a substance. For firstly the substance of each thing is that which is peculiar to it, which does not belong to anything else; but the universal is common, since that is called universal which is such as to belong to more than one thing. Of which individual then will this be the substance? Either of all or of none; but it cannot be the substance of all. And if it is to be the substance of one, this one will be the others also; for things whose substance is one and whose essence is one are themselves also one.

Further, substance means that which is not predicable of a subject, but the universal is predicable of some subject always."⁴⁰

This last remark is consistent with the doctrine of the Categories, namely that a substance is neither said of a subject, nor in a subject.⁴¹

All that now remain of the original four candidates for 'substancehood' are genus and essence. Now, while Aristotle does not explicitly discuss the merits of genus to be called substance in the highest sense, if we extend his remarks about the universal, we will see that genus cannot be substance for approximately the same reasons. Although in the Metaphysics, just as he is about to crown essence as the winner of the title 'substance', we ought to recall that since essence or form is substance in the highest sense, when it is a question of identifying the 'what' of a thing (in particular any living thing), what we are looking for is a statement of the essence. This essence is conveyed by the species, which in turn contains all of the determinations of the genus. In other words, let there be no haste to exclude genus totally because, although there is absolutely no question of it being substance in the highest sense, it does have connections to it. Thus there is no real and radical discontinuity between the doctrines of the Metaphysics and the Categories on this point. As for the precise difference between substance conceived as an individual concrete 'this' in the Categories, and substance conceived as 'essence' in the Metaphysics, I shall have more to say later.

We now turn to the question already answered: Is essence (or form) to be called substance? Before proceeding to the argument in its favour, I wish to say a word about the definition of essence. The statement: "...that for the sake of which any particular thing exists and has come into being is its essence..."⁴² is undoubtedly Aristotelian in tone, but did Aristotle write it? The passage occurs in the Oeconomica, a work whose authenticity is highly dubious. About the most that can be said in its defense is that it is included in the standard Oxford edition of the writings of Aristotle, albeit with a multitude of reservations and disclaimers. I quote it here only

because whether it is genuinely Aristotelian or not, it does capture the spirit of what Aristotle seems to mean by 'essence'.

Turning back to the argument in favour of essence to be called substance, in Metaphysics Z, 17, Aristotle reverts for a moment to the doctrine of predication and says that when, for example, we ask why bricks and stones are a house, "...the inquiry is about the predication of one thing of another..."⁴³ This, in turn, recalls the passage from the Posterior Analytics, quoted above,⁴⁴ in which Aristotle says that "...the substance of each subject is the predication of elements in its essential nature down to the last differentia characterizing the individuals."⁴⁵ If we take this text as complementary to Metaphysics Δ, 7, Aristotle remarks that "the kinds of essential predication are precisely those that are indicated by the figures of predication [i.e. the categories]...some predicates indicate what the subject is..."⁴⁶ In other words, "that in virtue of which"⁴⁷ the subject is what it is, and this is primarily "...the form or substance of each thing..."⁴⁸ This view surfaces again in Metaphysics Z, 4, where Aristotle says: "The essence of each thing is what it is said to be propter se....What, then, you are by your very nature is your essence."⁴⁹

From the foregoing, we may construe that what the thing is, its essence, is identical with its substance. We now have the means to understand the phrase essential predication more clearly, since the principles of the substance which are predicated essentially are those belonging to the essence, or form. Taking Aristotle's own starting point in Metaphysics Z, 17, that "...substance is a principle and a cause..."⁵⁰ R. Jolivet elaborates:

"Il part de cette notion que la substance est, d'une certaine manière, cause et principe (ἀρχὴ καὶ αἰτία). La question "Pourquoi?" signifie toujours: "Pourquoi A appartient-il à B?": lorsque nous di-

sons "Pourquoi?", nous demandons donc la cause. Celle-ci, à parler en logicien, est l'essence: en certains cas, c'est la fin, en d'autres, le premier moteur (ou cause efficiente). La première ne se rencontre qu'en la génération et la corruption; l'autre se rencontre aussi dans l'être. Or si l'on demande: "Pourquoi ces pierres sont-elles une maison?", c'est-à-dire, en général: "Pourquoi cette matière est-elle telle chose déterminée?", on répond: "Parce que l'essence ou forme de telle chose déterminée est présente en elle". Or cette forme, c'est la substance."⁵¹

A similar reading of essence is given by J. Tricot:

"En un mot, la substance véritable, c'est l'essence, la forme /qu'Aristote/ n'hésite pas à désigner aussi du nom de $\pi\rho\acute{\omega}\tau\eta\ \omicron\upsilon\sigma\acute{\iota}\alpha$, comme l'individu lui-même; c'est elle, en effet, nous le savons, qui constitue toute la réalité de l'être singulier où elle se trouve engagée.... L' $\omicron\upsilon\sigma\acute{\iota}\alpha$ n'est pas seulement l'individu, mais encore l'élément commun à une classe donnée, ce /qu'Aristote/ appelle l' $\omicron\upsilon\sigma\acute{\iota}\alpha$ seconde...réalité intelligible qui exprime seule l'essence de la chose."⁵²

In the Categories, it is a question of discovering what it is that 'contains' the essence as its organizing ontological principle, while at the same time, providing a subject for the inherence of a multitude of transient determinations, and this is substance. Substance is here conceived as a 'this', a conjunction of matter and form. The only thing that the essence of the Metaphysics lacks to become a concrete 'this' is matter in which the accidents of matter inhere. Without this matter, the form, let us say, of a man, is totally indistinguishable from the form of any other man. The same analysis would not be appropriate to the conception of form, or essence, alone as substance, because matter is no part of the essence. In other words, the earlier work done on substance in the Categories and

the Physics, for example, required a substance which will survive the various kinds of change. But in the case of substantial change, there must be something which survives the destruction (not annihilation) of a substance, and this is conceived by Aristotle to be substance as matter, which would combine with a new form to become a new substance, as the combined form-in-matter. For example, when a log has been burned, what remains is ash, thus, as far as the former log is concerned, its matter has to a certain extent survived, although the substantial change has now produced ash, and the form of the log had to be destroyed so that the matter underlying it could admit the form of the ash. The essence, individuated by matter, cannot survive changes like this, so that the early accounts of change leaned heavily towards an account of substance that involved matter, and which was not only susceptible to the substance-accident analysis, but which also displayed the act-potency dynamic. These physical considerations, in my view, prevented Aristotle from arriving sooner at the conclusion of the Metaphysics that substance in its highest sense is essence.

Even as early as the analysis of substance as the locus of essential predications and accidental inhereents in the Categories, we see the germ of the epistemological considerations latent in the doctrine of essence, in other words, the essence as known. It is partly on this consideration that Aristotle grants the title of 'substance' in a secondary sense to species and genera. Because they are knowable, they are informative.

In an effort to justify my claim that the doctrine of substance generally, in Aristotle, is not incoherent, I should assert my belief that there is a connecting thread running through his various considerations of it. It is not, I hope, too unreasonable to believe that Aristotle was passionately concerned with trying to understand nature as a whole. By 'nature' I mean

the totality of all that exists, the ontological principles of their internal structures, the laws governing their relations with one another, the means by which they may be known, and the rules according to which they may be talked about coherently and rightly. In the physical writings, he is partially concerned with explaining how some things can change and yet remain the same, while other things are changed not only accidentally, but also substantially. The rich doctrine of potency and act emerged from these considerations. In the logical writings, Aristotle is concerned with the way in which we talk about things, which has a great deal to do with his investigations into the correlation between things, as they exist in the world and how they are conceived in the mind. The early investigation into substance as form-in-matter, and as logical subject, reached a culmination in the Metaphysics. In this work, at least in Book Z, his project is to identify that which may be called substance in the highest sense. The winner is essence because it alone is the conception of substance which is open to two distinct investigations. Ontologically it is the reason why a thing is what it is, it is, in a living thing, the formal and final cause. But because the individuated form has features in common with other individuated forms of the same kind, it gives rise to the way of knowing called universal knowledge, and as such, it is a fit subject for study by epistemology and logic. I shall have a good deal more to say on this subject in Chapter V, but for the moment let us resume our interrupted discussion.

In general, the approach to substance is almost inductive, it is the result of various inquiries conducted in a variety of disciplines, all of which converge on a central point, i.e. what is, in what I like to call the 'unified theory', given the appellation 'substance'. This notion is applicable across the broad

spectrum of Aristotle's philosophy.

"The theory of substance can be seen as arising from the theory of nature, just as substance itself has natural substances for its prime example. Whatever has a nature is a substance; it has a source of motion within itself, which lies in its form, or eidos. If we ask what the thing is, we get an account of it, a logos, and if we grasp that account we have got the essence...

The inquiry into substance is thus a generalization of the inquiry into nature, ranging over a possibly wider field of entities and judging among a wider set of candidates for primacy or ultimacy. The candidates come not only from the older rivals of Aristotle's methodological approach - the matter of the atomists and the universals and mathematical concepts of the Platonists - but also from the advances Aristotle has himself made in his logical and scientific work. The inquiry is thus also a reckoning that Aristotle is making with himself. The logical character of a great part of the inquiry in Zêta is a utilization of his ideas along the lines of the early experiment with essence and accident; the physical turn in Êta, in which he invokes potentiality and actuality, draws upon his scientific labors."⁵³

This author is not alone in seeing Aristotle in this way. Suzanne Mansion also is struck by the use of substance as the point of intersection between the logical and ontological orders:

"Sans qu'il faille ni qu'on veuille approfondir dès maintenant la doctrine aristotélicienne de la substance, on aperçoit déjà que la classification des prédicats en catégories se place sur le plan de la réalité, tandis que la division des prédicables reste sur le plan logique. La substance est un être d'une nature autre que la quantité ou la qualité, tandis que

chaque être et chaque manière d'être possèdent une certaine essence. Cependant il est important de prendre conscience que le couple essence-accident logique n'est pas indépendant du couple substance-accident ontologique Si un prédicat ne signifie pas l'essence, il ne signifie pas non plus la substance, puisque les prédicats qui expriment la substance sont nécessairement essentiels. En d'autres termes, lorsqu'il s'agit d'une substance accidents logiques et accidents ontologiques coïncident. Être γραμματικῆς δεκτικόν, susceptible d'apprendre la grammaire, est propre à l'homme, mais cela n'en constitue pas l'essence, car ce prédicat ne représente pas la même chose que le sujet homme. Ce prédicat est rapporté à l'homme comme à un substrat distinct: il en est un accident, une qualité. L'opposition entre les notes essentielles et celles qui ne le sont pas n'est donc pas purement logique: elle a un fondement réel, puisque, lorsqu'elle s'applique à un être substantiel, la distinction substance-accident y correspond."⁵⁴

The notion that substance serves, for Aristotle, as a point of intersection for logic and for ontology cannot be overstressed, since one of the consequences of that view will surface again in Chapter V. But, generally, the position that substance serves as the locus for logic and ontology, provides an interesting insight into the logical law of non-contradiction:

"...the logical principle of non-contradiction is shown also to be a fundamental law of being. The categories, and potentiality and actuality, and matter and form, are similarly pervasive features of things that are. In this sense, the search for substance can be interpreted as an attempt to exhibit the structures of the world that serve as

starting points for any enquiry, whether it is logical or physical."⁵⁵

Finally, R. Jolivet gives an account of substance that takes note of a wide variety of influences and uses. In what follows, we may discern elements present in the Categories, and in the Metaphysics. In addition, it provides an elegant summary of the more important points covered thus far:

"La substance, au sens propre, est ce qui existe en soi, ce qui est, au sens plein du mot, - ce qui n'est attribué à rien, mais à quoi tout le reste est attribué, à titre d'accident et comme à un sujet d'inhésion. Elle se divise en substance première et en substance seconde. La substance première est par excellence et premièrement substance: c'est l'être individuel subsistant en soi. La substance seconde n'est dite telle que par analogie: elle désigne le genre et l'espèce, sous lesquels sont contenues les substances premières. La substance n'a pas de contraire, mais elle est le sujet des contraires. En tant que tel être concret, elle comprend et l'essence avec ses propriétés, et les accidents contingents: comme telle, elle est l'objet du sens; mais ce qui la constitue en sa réalité propre et le fait intelligible, c'est l'essence qu'elle est en acte, et plus précisément encore, la forme, par quoi, s'il s'agit d'êtres composés, la matière est déterminée à être telle ou telle. En définitive, la substance n'est accessible qu'à l'esprit."⁵⁶

Thus, the conclusion to which Aristotle comes at the end of his tortuous journey away from Plato is that the form, qua intelligible, is accessible only to the mind. Plato, of course, had said the same thing of the Forms, the paramount difference being that Plato's Forms are separated from the things which instantiate them, whereas Aristotle's forms are (along with matter) constitutive of the things which embody them.

The notion that Aristotelian substances are accessible only to the mind will have important consequences for the discussion in Chapter V, but I wish now to turn, for a moment, to the general question of the primacy of substance in Aristotle's philosophy.

4. The Primacy of Substance in the Aristotelian System.

Given Aristotle's rejection of the separate existence of the Intelligible Forms as the ultimate ground of the real, he must assert that the reality of things lies in the things themselves. His search is for what is in the highest sense, and he finds what he is looking for in substance.

"There are several senses in which a thing may be said to 'be' as we pointed out previously in our book on the various senses of words [i.e. Metaphysics Δ, 17; for in one sense the 'being' meant is 'what a thing is' or a 'this', and in another sense it means a quality or a quantity or one of the other things that are predicated as these are. While 'being' has all these senses, obviously that which 'is' primarily is the 'what', which indicates the substance of the thing."⁵⁷

In these opening lines of Metaphysics Z, Aristotle embarks on an account of substance that will be his richest treatment of the subject since chapter five of the Categories. While not neglecting a fundamental insight of that work (namely, that substance must be considered with the other categories as a primary way in which things are), he also anticipates the conclusion that substance will be indicated by the 'what' or essence of the thing.

It is an axiom of the Aristotelian system that being has many facets, and that the various definitions of it are those

which will be appropriate to the aims and methods of the various sciences. Thus, his reckoning with substance and his various definitions of it are also those which will be appropriate to the aims and methods of the various sciences. As he himself says;

"...there are as many parts of philosophy as there are kinds of substance, so that there must necessarily be among them a first philosophy and one which follows this. For being falls immediately into genera; for which reason the sciences too will correspond to these genera..."⁵⁸

This passage helps to bridge the gap between the so-called special sciences and first philosophy. The special sciences tend to follow the division of the categories, which is what Aristotle means when he says that being falls immediately into genera.^a For example, physics studies things not qua being, but rather, qua sharing in movement, while mathematics suppresses everything but the quantitative and continuous qua quantitative and continuous and not qua being.⁵⁹ But, we are told, the special sciences deal also with different 'kinds' of substance, whereas Aristotle believed that there was something which was substance in the highest sense, and that this was the province of the highest, or first, philosophy. He says as much in the first chapter of Metaphysics Γ.

"There is a science which investigates being as being and the attributes which belong to this in virtue of its own nature. Now this is not the same as any of the so-called special sciences; for none of these others treats universally of being as being. They cut off a part of being and investigate the attribute of this part; this is what the mathematical sciences for instance do. Now since we are seeking the first principles and the highest causes, clearly there

must be some thing to which these belong in virtue of its own nature. If then those who sought the elements of existing things were seeking these same principles, it is necessary that the elements must be elements of being not by accident but just because it is being. Therefore it is of being as being that we also must grasp the first causes."⁶⁰

But before grasping the concept of being qua being (τὸ ὅν ᾧ ὅν), we must be aware of the somewhat empirical way in which Aristotle proceeds. He notes the properties of individual concrete substances, and brings the full force of his analytical power to bear on them. This process yields results in the special sciences, but as this 'inductive' method continues, he is led irresistibly to the conclusion that there is a fundamental sense of being which is manifested by a fundamental sense of substance, which in turn is studied by a fundamental branch of philosophy. But this notion was not an early development, in its first real appearance in Aristotelian philosophy, substance was the simple 'primary substance' of the Categories:

"...that which is called a substance most strictly, primarily and most of all - is that which is neither said of a subject nor in a subject, e.g. the individual man or the individual horse."⁶¹

This view of substance as a simple, empirically observable 'natural unit' survives even into the heart of Metaphysics Z:

"By a 'primary' substance I mean one which does not imply the presence of something in something else, i.e. in something that underlies it which acts as matter."⁶²

Even at this late point, Aristotle has not abandoned the notion that primary substance cannot be 'in' a subject. This is a fundamental feature of the definition of substance in the Categories.⁶³

In the Categories again, Aristotle provides further distinguishing marks of substance, e.g. a) substance is not in a subject;⁶⁴ b) "...it is characteristic of substances and differentiae that all things called from them are so called synonymously. For all predicates from them are predicated either of the individuals or the species...";⁶⁵ c) every substance seems to signify a certain 'this';⁶⁶ d) there is nothing contrary to substance;⁶⁷ e) substance does not admit of a more and a less;⁶⁸ and finally, f) according to Aristotle, "...it seems most distinctive of substance that what is numerically one and the same is able to receive contraries."⁶⁹ What he means by this is explained a few lines further: "For example, an individual man - one and the same - becomes pale at one time and dark at another, and hot and cold, and bad and good. Nothing like this is to be seen in any other case."⁷⁰

In the early stage of his thought about substance, which we have sketched above, Aristotle ascribes priority in being to individuals in the category of οὐσία, and it is these that are said to 'be' in the primary sense. But, by the time of Metaphysics Γ, he had come to realize that substance meant more than concrete individuals alone. Instead, he saw substance in its various senses ranging over the wide field of every kind of speculation, and indeed that substance was the key to finding unity in the different forms or senses of being.

"Being," too has various meanings, but they all refer back to a single root: some are said to "be" because they are themselves primary beings πρώται οὐσίαι; others because they modify primary beings; still others, because they are on the way to becoming a being, or are destroying it, or are its defects or its qualities or its producers or sources or whatever else may be relative to a primary

"...where the notion of substance is concerned, part of what is fundamental to its sense is the idea of self-existence, the idea of independent existence....Aristotle developed his doctrine of substance by his preoccupation with criticism of the Platonic notion of chōrismos. Aristotle argued very strongly against Plato's doctrine of separation of the forms; but in so arguing he carried out...a logical exploration of the notion of separation which profoundly affected the way in which he saw the world; and to the way in which he saw the world the notion of substance was central."⁷⁵

Suzanne Mansion agrees:

"Il est évident que la vision philosophique qu'Aristote a du monde et sa théorie de la substance sont étroitement liées. Il note lui-même que chercher "ce qu'est l'être, c'est-à-dire ce qu'est la substance" Meta-physics Z, 1, 1028b37 résume tout le travail du philosophe."⁷⁶

On the basis of the aforementioned considerations, then, there can be no doubt about the priority accorded to substance in the Aristotelian system:

"...all the other things [that exist] are either said of the primary substances as subjects or in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist."⁷⁷

Furthermore,

"...only because there is primary being can the other ways of being be and, consequently, that what is first or simply, not derivatively, is primary being.

Things can "be first" in several ways; but primary being is first in all ways, first in discourse λόγος, in knowledge γνώσις, and in time χρόνος....[Thus] the ever-puzzling question "What is being?" amounts to this: "What is primary being?"⁷⁸

Substance is the point of intersection not only for essential predication and accidental inherence, but also for all the other ways, or modes, of being.

"What is substantial exists of itself; whatever else there is, whatever other fundamental modes of being there are, all are relative to substance."⁷⁹

Martha Husain agrees:

"All categories other than substance imply substance directly, but they imply the other categories only mediately, through their common connection with substance. To be a quality means for Aristotle to be a quality of a substance, which in turn is modified in all other categories. But a quality does not for example imply quantity directly. For it is not the quality of a quantity, but of a substance."⁸⁰

Thus far, we have dealt with the notion of primary substance as the individual, concrete 'this' a particular in the category of οὐσία. This is how Aristotle conceives of it for the purposes of the substance-accident analysis in the Categories. In the logical writings, he is more concerned with the notion of substance as subject. In the Physics, the substance-accident analysis is not abandoned, but the investigation into the types of change leads to the act-potency dynamic, all of which are classified according to the schema of the categories. The question of the proper or highest determination of substance occurs, among other places, in the De Anima. The relevant text can be seen as a preliminary to the main discussion in the Metaphysics on the various senses in which substance can be conceived and what deserves to be called substance in the highest sense. In the De Anima, we read:

"We are in the habit of recognizing, as one determinate kind of what is, substance, and

that in several senses, (a) in the sense of matter or that which in itself is not 'a this', and (b) in the sense of form or essence, which is that precisely in virtue of which a thing is called 'a this', and thirdly (c) in the sense of that which is compounded of both (a) and (b).⁸¹

But, in the Metaphysics, we are presented with the notion that there is a primary and ultimate sense of substance with a discipline of its own to study it (i.e. first philosophy). Aristotle abstracts from the various ways of being, and considers the problem of being qua being -

"...if there is no substance other than those which are formed by nature, natural science will be the first science; but if there is an immovable substance, the science of this must be prior and must be first philosophy, and universal in this way, because it is first. And it will belong to this to consider being qua being - both what it is and the attributes which belong to it qua being."⁸²

On the subject of being qua being in the Metaphysics, it seems that the notion of the priority of substance has an application here also. It is frequently argued that Aristotle's categories are categories of being, and being in its widest application (being qua being)⁸³ is considered by Aristotle under four principal aspects:⁸⁴

- a) Being per accidens,
- b) being according to the modes of the categories,
- c) being in the sense of truth, non-being in the sense of falsity,
- d) being as actual and potential.

For the purposes of the present discussion, we can rule out the first and third of these aspects; being per accidens is irrelevant here since it cannot be treated universally and necessarily, or scientifically, as Aristotle says in the Metaphysics.⁸⁵

The third aspect, being in the sense of true and false, will not be considered in the context of the present discussion. For our immediate purposes, being according to the modes of the categories, and being as act and potency are especially relevant to the notion of being qua being. I shall discuss the second of these in the following chapter in response to a problem raised by Richard Blackwell, so for the moment, we are left with the categories.

Within the four principal aspects of being qua being enumerated above, Aristotle ascribes priority to the categories: "... 'being' and 'non-being' are used: first, according to the types $\zeta\sigma\chi\eta\mu\alpha$ of categories..."⁸⁶ And, as he says elsewhere in the Metaphysics, not only is being a multivocal concept which has as many senses as there are categories,⁸⁷ but non-being also has as many senses as there are categories.⁸⁸ Therefore, on the basis of what has been seen, Aristotle ascribes priority in being qua being to the categories, and within the categories, it is substance which is paramount. From here it is not a broad leap to the conclusion that substance has priority throughout the entire system.

Ultimately, although Aristotle designates form, or essence ($\tau\acute{o} \tau\acute{o} \eta\nu \epsilon\acute{\iota}\nu\alpha\iota$) as substance in the highest sense, it is my contention that, in the Aristotelian system, there is no one, global, conception of substance that encompasses within its comprehension all of the meanings which $\sigma\acute{o}\upsilon\sigma\acute{\iota}\alpha$ may be said to have. Depending upon which 'part' of 'reality' is being studied, there may be five, and possibly six, different conceptions of substance. With some overlapping, each of these conceptions seems to correspond to a different science. In Metaphysics B, Aristotle says that "...it is not reasonable that one science should deal with all $\zeta\sigma\chi\eta\mu\alpha$..."⁸⁹ and later, he says

that "...there are as many parts of philosophy as there are kinds of substance..."⁹⁰ What may we say that these parts of philosophy are, and what kinds of substances do they study? Let us consider the following:⁹¹

1. Οὐσία as τόδε τι. This is substance identified with the individual particular 'this'; this is the concrete empirically observable 'natural unit' that is called 'primary substance' in the Categories. It is, further, what Aristotle calls "...substance most strictly, primarily, and most of all..."⁹² This particular notion of substance belongs to no one science, but to several, particularly logic and metaphysics.
2. Οὐσία as εἶδος in the sense of species, to which is allied the notion of γένος. These are the secondary substances spoken of in the Categories,⁹³ and again, they are of special interest to logic and metaphysics.
3. Οὐσία as καθόλου (universal). This conception is highly abstract, being taken to refer to species and genera qua universal, and is of particular interest to logic and epistemology.
4. Οὐσία as ὑποκείμενον. This is a complex notion, depending on its use, it can be the matter, or substratum of change, studied by physics, or it can be the subject of which logical predications are made..
5. Οὐσία as τὸ τί ἦν εἶναι. This is the one that Aristotle calls substance in the highest sense.⁹⁴ The usual rendering of 'this term is 'essence' which may be defined as that in the thing which makes it to be the kind of thing it is. All of the Aristotelian sciences must ultimately come to terms with this notion. Throughout the long search for substance in the highest sense, the

aforementioned candidates are rejected in favour of this one, not because they are not 'substances', or 'substantial' in some sense, but because they are not substances in the highest sense.

6. As a final possibility, there is the discussion in Metaphysics A, 7, in which God (θεός) is called an οὐσία which is "...eternal, immovable and separate from sensible things..."⁹⁵ This, presumably, would be the immovable substance, the science of which is first philosophy.⁹⁶

"Pure, necessary, fully actual, eternal, unchanging, living, self-conscious thought, embracing within itself the vibrant essence of the world, the ultimate source of physical movement and biological growth, the light that quickens human thought, the good that men unite with momentarily in contemplation, the power that alone can order the whole and give eternal structure to things and processes - such is Aristotle's God."⁹⁷

In the end, it may be argued that Aristotle's philosophy becomes a 'theology' in that the ultimate cause and principle, as well as the ultimate substance, are identified with God, the supreme Form-in-Act.

But, to return to the sub-lunar world, there is an important problem that ought now to be addressed. Some modern commentators have attempted to argue that the primary substance spoken of in the Categories is also the primary substance of Aristotelian metaphysics. This confusion of the two notions has led to endless problems, and Joseph Owens has a particularly illuminating insight into the cause of the misunderstanding:

"An actual and by no means innocuous instance of a category mistake, as far as the understanding of Aristotle is concerned, is the oft repeated notion that the concrete individual is primary substance for Aristotelian

metaphysics. In Aristotelian logic the concrete individual is indeed the primary substance. It is the basic subject of all predication. From the logician's viewpoint, accordingly, it is the primary being (ousia). But that does not at all mean that the concrete individual is primary being or primary substance in the real order. In the Metaphysics, Aristotle's doctrine to the contrary is explicit. Form is the primary substance. The concrete individual and the matter are only secondary instances of substance in the real world. Yet this mistake has resulted in a common misconception - the Aristotelian metaphysics is believed to give primacy to the concrete individual, in contrast to the Platonic primacy of form! Further, from the logician's standpoint the species and genera in the first category are substances. They are universals; and from the point of view in the Metaphysics, no universal can be a substance. Confusion of the two standpoints has provided an argument that the Categories is in conflict with the teaching of the Metaphysics. Does not this situation indicate rather the category mistake of confusing logical and metaphysical predicates in their application to the same subject?"⁹⁸

Owens' position seems to imply that the Categories is primarily concerned with logical predicates, whereas the Metaphysics tends more in the direction of an analysis of ontological principles in the real order. I am not as convinced that the Categories is a logical treatise, and I shall state why in the next chapter. Nevertheless, Owens has provided an interesting and valuable perspective on this problem.

To argue, as many have done, that the 'disparity' between the conception of substance in Categories, 5, and Metaphysics 2, can be explained by the historical evolution of Aristotle's thought is certainly one way of considering the question, but there is at least another. I would suggest that at no point in

the general discussion of substance, regardless of what is being called substance, is Aristotle contradicting himself in any ultimate sense. If we take our inspiration from what Aristotle says about 'being' in the opening lines of Metaphysics, Γ, 2, we find the following:

"There are many senses in which a thing may be said to 'be', but all that 'is' is related to one central point, one definite kind of thing, and is not said to 'be' by a mere ambiguity. Everything which is healthy is related to health, one thing in the sense that it preserves health, another in the sense that it produces it, another in the sense that it is a symptom of health, another because it is capable of it."⁹⁹

In this quotation, Aristotle says that the variety of things called 'healthy' are so called because of their relation to health, and in the lines that follow,¹⁰⁰ he argues that 'being' is similarly analogical. As Ross says:

"'Being' has not always the same meaning, but it is no mere accident that all 'beings' are so called; all stand in some relation to οὐσία, the primary ὄν."¹⁰¹

If, then, 'being' is an analogical term, and the highest and most excellent manifestation of 'being' is substance, why, then, may we not say that οὐσία is also an analogical term?^Y On this reading, τὸδε τι is called οὐσία because it is the concrete thing in the world, a 'this'; τὸ τί ἦν εἶναι would be called οὐσία because it is what the thing is; εἶδος (species) would be called οὐσία because it transmits the τὸ τί ἦν εἶναι to the τὸδε τι, and ὑποκείμενον could be called οὐσία because it underlies physical changes in the τὸδε τι. On the logical level, ὑποκείμενον can be called οὐσία because it is the concrete subject of which logical predications are made, and among the lo-

gical predications made universally are the essential predications (εἶδος and γένος) which are universal (καθόλου) and so also called οὐσία by analogy. Aristotle himself calls them 'substances' but only in a secondary sense.¹⁰²

At this point, I am anticipating the conclusion of Chapter V, somewhat, but it seems that the conception of substance in Aristotle provides grounds for suspecting that it is not a mere succession of different ideas, tried and abandoned, but rather that all the senses of 'substance' are analogically unified and focus directly on the notion of 'being'. It appears also that the several conceptions of substance revolve around the singular concrete existent (the individual man or horse) described in Categories, 5, for without these, and all other primary substances, none of the other types of substance would exist.¹⁰³

"...it becomes evident that Aristotle did not abandon his view of the individual as primary substance, but rather refined it. Substance is not species conceived as a general type, but individuals talked about in a general way - much as we loosely say "governing law" when we explain why a particular thing reacted in a given way. What makes a thing react the way it does is the particular object that impinges on it in a particular way, not the law that tells us how things react universally under such conditions. The law helps us pick out what particular features in the particular situation had what effect; it does not do the causing. So too form (the victorious candidate for interpreting substance), though it has a universal character and conveys understanding in virtue of its universal scope, helps us pick out features that are effective in what the individual does."¹⁰⁴

The importance of form, or essence, as the highest sense of substance will have an important bearing on the discussion of the epistemological function of the categories in Chapter V.

Further elaboration of this topic will, then, have to be postponed until we reach that point.

Having followed the career of substance from the 'natural unit' of the Categories all the way to the Prime Mover of Metaphysics A, we shall now return to the treatise which began the investigations in this chapter, namely, the Categories. Our rather lengthy, but necessary, excursion into 'substance' should not have made us forget that there are nine other categories requiring attention. We may now turn to the theory of categories itself, and examine the peculiar problems relevant to it.

NOTES TO CHAPTER III

1. A. Edel, Aristotle and His Philosophy,
(Chapel Hill: University of North Carolina Press, 1982),
p. 34.
2. Cornford, Before and After Socrates, p. 99.
3. Ross, Aristotle, p. 24.
4. Meta., Z, 3, 1028b33-36.
5. I am referring, specifically, to Book Z.
6. C. Georgiadis, "The Individual Thing and its Properties in Aristotle," Dialectics and Humanism, 4(1977),
p. 157.
7. See Chapter I, note 81.
8. Cat., 5, 2a11-18.
9. Ackrill, op. cit., pp. 5-6.
10. Cat., 2, 1b2-4.
11. D. R. Cousin, "Aristotle's Doctrine of Substance (II)," Mind, 44(1935), p. 173.
12. Ibid.
13. A. C. Lloyd, "Aristotle's Categories Today," The Philosophical Quarterly, 16(1966), p. 263.
14. "Does Aristotle Have a Doctrine of Secondary Substance?," Mind, 57(1948), pp. 221-225.
15. Meta., Z, 13, 1038b7-1039a22.
16. Sachs, art. cit., p. 225.
17. Cat., 2, 1a20 ff.
18. Ibid., 4, 1b25-26.

19. H. P. Cook, (trans.), The Categories, in Aristotle: The Organon, I, The Loeb Classical Library, (London and Cambridge, Mass.: William Heinemann Ltd., and Harvard University Press, 1955), p. 17.
20. E. M. Edghill, (trans.), Categoriæ (Categories), in McKeon, op. cit., p. 8.
21. Ackrill, op. cit., p. 5.
22. G. R. G. Mure, "Aristotle's Doctrine of Secondary Substances," Mind, 58(1949), p. 83.
23. Cat., 5, 2b16-22.
24. Ackrill, op. cit., p. 7.
25. Ibid.
26. See especially, Meta., 2, 4 and 6.
27. G. Rodier, "Quelques remarques sur la conception aristotélicienne de la substance," in Etudes de philosophie grecque, (Paris: Vrin, 1957), p. 170.
28. O. Hamelin, Le système d'Aristote, (Paris: Vrin, 1976), p. 103.
29. M. M. Scheu, The Categories of Being in Aristotle and St. Thomas, (Washington D. C.: The Catholic University of America Press, 1944), p. 15.
30. See note 13, above.
31. Edel, op. cit., p. 119.
32. The controversial and problematic nature of the Aristotelian doctrine of secondary substance has been partly responsible for fueling the debate concerning the authenticity of the treatise Categories. For a discussion of these interrelated questions, see Appendix.
33. See section 1, above.
34. R. Jolivet, La notion de la substance, (Paris: Beauchesne, 1929), p. 25.

35. Meta., H, 1, 1042a26.
36. Ibid., Z, 10, 1036a9.
37. Ibid., Z, 8, 1033b16-24, (Hope, op. cit.)
38. Phys., I, 9, 192a22; a31-32.
39. Edel, op. cit., pp. 47-48.
40. Meta., Z, 13, 1038b7-15.
41. Cat., 5, 2a11-12.
42. Oeconomica, I, 1, 1343a13. (E. S. Forster, trans.), in The Works of Aristotle Translated into English, X, (W. D. Ross, ed.), (Oxford: Clarendon Press, 1961).
43. Meta., Z, 17, 1041a25.
44. See Chapter II, note 20.
45. Post. An., II, 13, 96b12-13.
46. Meta., Δ, 7, 1017a23-26.
47. Ibid., Δ, 18, 1022a14.
48. Ibid.
49. Ibid., Z, 4, 1029b14-15.
50. Ibid., Z, 17, 1041a10.
51. Jolivet, op. cit., pp. 30-31.
52. J. Tricot, (trans.), Aristote: La Métaphysique, I, (Paris: Vrin, 1964), p. 440.
53. Edel, op. cit., pp. 116-17.
54. S. Mansion, Le jugement d'existence chez Aristote, (Louvain: Editions de l'institut supérieur de philosophie, 1976), pp. 48-49.
55. Edel, op. cit., p. 114.

56. Jolivet, op. cit., pp. 33-34.
57. Meta., Z, 1, 1028a10-15.
58. Ibid., Γ, 4, 1004a2-6.
59. Ibid., K, 3, 1061a29-b8.
60. Ibid., Γ, 1, 1003a21-32.
61. Cat., 5, 2a11-13.
62. Meta., Z, 11, 1037b2-4.
63. See note 61, above.
64. Cat., 5, 3a7.
65. Ibid., 3a33.
66. Ibid., 3b10.
67. Ibid., 3b24; see also, Meta., K, 12, 1068a11.
68. Cat., 5, 3b33.
69. Ibid., 4a10.
70. Ibid., 4a18-22.
71. Meta., Γ, 2, 1003b5-11, (Hope, op. cit.).
72. Ibid., 1003b17-19.
73. P. Ricoeur, Etre essence et substance chez Platon et Aristote, (Paris: Société d'édition d'enseignement supérieur, 1982), pp. 264-65.
74. Phys., I, 2, 185a31 ff.; Meta., A, 4, 1070b36 ff.; Ibid., M, 2, 1077b1-4.
75. D. M. MacKinnon, "Aristotle's Conception of Substance," in New Essays on Plato and Aristotle, (R. Bambrough, ed.), (London: Routledge and Kegan Paul, 1965), p. 100.
76. S. Mansion, art. cit., p. 1099.

77. Cat., 5, 2b3-6.
78. Meta., Z, 1, 1028a29-33; 1028b4, (Hope, op. cit.)
79. MacKinnon, art. cit., p. 101.
80. M. Husain, "The Question "What is Being" and its Aristotelian Answer," The New Scholasticism, 50(1976), p. 299.
81. De Anima, II, 1, 412a7-10.
82. Meta., E, 1, 1026a28-33.
83. Phys., I, 2, 185a-III, 6, 206a34, especially, III, 4, 203b30-III, 8, 208a36; Meta., Γ, 1, 1003a22-25; Γ, 2, 1004b15-17; and Nic. Eth., I, 6.
84. Meta., Δ, 7.
85. Ibid., K, 8, 1065a7-20.
86. Ibid., Θ, 10, 1051a34-35.
87. Ibid., Δ, 7, 1017a23-25.
88. Ibid., N, 2, 1089a16-27.
89. Ibid., B, 2, 997a17-18.
90. Ibid., Γ, 2, 1004a2.
91. These divisions are by no means exhaustive or definitive. I advance them merely as suggestions.
92. Cat., 5, 1b11-12.
93. Ibid., 1b13-16.
94. Meta., Z, 6, 1031b18.
95. Ibid., A, 7, 1073a3-5.
96. Ibid., E, 1, 1026a29-31.
97. Edel, op. cit., p. 132.

98. J. Owens, "Aristotle on Categories,"
The Review of Metaphysics, 14(1960), pp. 83-84.
99. Meta., Γ , 2, 1003a33-39.
100. Ibid., 1003b6-11.
101. W. D. Ross, Aristotle's Metaphysics, I,
 (Oxford: Clarendon Press, 1924), p. 256.
102. Cat., 5, 1b13-16.
103. Ibid., 2b5-6.
104. Edel, op. cit., pp. 127-28.

α . Not, of course, in the sense that every science corresponds to one category only, but rather, the special sciences all study substances in some sense as these substances exhibit certain attributes. In other words, the special sciences study being qua manifesting certain attributes and not qua being which is solely the province of first philosophy.

β . Aristotle will echo these distinctions later in the Metaphysics where he says: "It follows, then, that substance has two senses, (A) the ultimate substratum, which is no longer predicated of anything else, and (B) that which, being a 'this', is also separable - and of this nature is the shape or form of each thing." (Meta., Δ , 8, 1017b23-26). We may compare this text to Meta., H, 1, 1042a25-32, which reads: "...sensible substances all have matter. The substratum is substance, and this is in one sense the matter (and by matter I mean that which, not being a 'this' actually, is potentially a 'this'), and in another sense the formula or shape (that which being a 'this' can be separately formulated), and thirdly the complex of these two, which alone is generated and destroyed, and is, without qualification, capable of separate existence; for of substances completely expressible in a formula some are separable and some are not."

γ . Although Aristotle defines 'substance in the highest sense as 'essence', it remains true that no essence can exist apart from the species and, by extension, the individuals it is the

essence of. Thus, in what follows, it should be borne in mind that the 'first analogue' must be the substance described in Categories, 5, the individual man or horse, the 'primary substance' without which none of the other types of substance could exist. Cf. Ibid., 2a33-b6.

CHAPTER IV

THE CATEGORIES

1. The Question of the Origin of the Categories.

Those who think that the categories are logical 'classes of predicates' can, after Kant, be forgiven for hoping to find in Aristotle a similar logical deduction. But, as Zeller says, the question is not whether it is possible to logically schematize the ten categories, for any series could be so arranged provided that its members were not arbitrarily selected, but "...whether Aristotle arrived at them by means of a logical deduction. And against any such supposition there are two facts: first, that Aristotle in speaking of the categories, never indicates such a deduction, and next, that none can be found into which they naturally fit."¹ In fact, Zeller thinks that there is "...so little indication of any fixed principles in their evolution that we are reduced to supposing that he obtained them empirically, by putting together the main points of view from which the data of experience can be practically treated."² Ultimately, Zeller believes that

"The theory of the Categories...belongs more the Metaphysics than to Logic, because it is not deduced from the logical form of the Notion as such, or from the process of thought involved in its construction, but is derived rather from the natural division of those real relations, to which the Categories, according to their content, are referred."³

But, Hamelin believes that

"...Zeller a commis un contre-sens en voulant renvoyer la théorie des catégories à la métaphysique. Il est bien entendu qu'il

n'y a rien de purement formel et de purement logique dans Aristote; mais les catégories sont justement ce qu'il y a de plus formel et de plus logique, ce qui en thèse générale est le plus éloigné de l'individu. Or c'est sur l'individu que roule la métaphysique."⁴

Once again, on the question of a possible deduction of the categories in Aristotle, Ross is of the opinion that

"Aristotle has no 'deduction of the categories', no argument to show that the real must fall into just these divisions. He seems to have arrived at the ten categories by simple inspection of reality, aided by a study of verbal distinctions."⁵

Given that the categories, as listed by Aristotle, give no overt clue as to their origin, his commentators grant themselves license to indulge in an orgy of speculation. Kant takes the view that the categories, in Aristotle, are the fundamental concepts of the understanding.⁶ He continues:

"It was an enterprise worthy of an acute thinker like Aristotle to make search for these fundamental concepts. But as he did so on no principle, he merely picked them up as they came his way, and at first procured ten of them, which he called categories..."⁷

Kant concludes⁸ that the list remained defective on account of the empirical procedure followed.

"It has been pointed out many times by commentators and theoreticians alike that the Aristotelian list of categories suffers from an apparent lack of order. The choice of the individual categories seems arbitrary, and apart from the principle by which all the accidental categories are related to substance by inherence, their relations are left unnoted. The opinion which is most generally entertained is that of Kant."⁹

However, as G. R. G. Mure notes: "The categories are the highest universals of a pluralist system, and the universals of a pluralist system are inevitably empirical."¹⁰

If we take our own cue from Aristotle's reaction against Plato, then we can argue with a fair degree of probability that, even in this early conceptual experiment, Aristotle was not so much concerned to show how, or that, the world of our experience relates to eternal archetypes as he was to determine the real relations which real things bore to each other. This is the thrust of Moravcsik's comment that the list of categories constitutes "...those classes of items to each of which any sensible particulars - substantial or otherwise must be related."¹¹ While Ackrill, apparently inspired by Cornford, argues that the list was arrived at through the coming together of two different paths: one by noting what types of answers are appropriate to different questions; and the other by forcing the question 'what is it?' until we arrive at some high genus.¹² Take, for example, the following questions and answers as provided by Cornford: "What is this? Red. What is red? A colour. What is a colour? A Quality."¹³ Quality itself cannot be resolved into anything higher. Cornford, however, seems to be unaware that this is a strong echo of something that Plato had said in the Cratylus to the effect that

"...if we take a word which is incapable of further resolution, then we shall be right in saying that we have at last reached a primary element, which need not be resolved any further."¹⁴

Taking a somewhat different line, Gomperz sees the theory of categories emerging in the following way:

"...we may distinguish between the necessary items in the table of categories, those which are deduced from the "Principium" deemed absent by Kant, and the unessential ones which

are gleaned from casual observation. Aristotle might have reasoned as follows: Concrete objects exist in time, and occupy measurable portions of space; their quality is not exhausted in the complex of properties which we regard as constituting their essence and forming the content of their names; lastly they do not exist in isolation; on the contrary, they are bound together by a wide-spun net of reciprocal relations and interactions. Accordingly, the whole range of statements that may be made about them falls under the heads of time, of place and spatial magnitude, of essence and quality, of relation, of the exercise and reception of influences. Had this been his procedure, he could not have failed to notice the subsidiary rank of "Having" and "Lying," and, according to the exigencies of his main purpose, he would either have excluded them altogether or admitted them under reservation, with an immediate reference to their inessential character and the limited sphere of their application."¹⁵

F. C. Copleston takes the view that the categories arose from the substance-accident analysis, coupled with a reflection on common-sense experience:

"[...]the ordinary man makes statements in ordinary language which⁷ imply a recognition in practice of a distinction between things and their modifications, between 'substance' and 'accidents', between that of which we predicate qualities, quantity and relations and qualities and relations which exist only as qualities and relations of that of which they are predicated. We can say that Peter is sitting on a chair, but nobody would expect to encounter the relation of 'sitting on' existing as an entity apart from any sitter....For the philosopher...who accepts this metaphysic, ordinary language reflects the common experience

of men, and in common experience a distinction between substance and accident is implicitly recognized. What the philosopher does is not to invent a gratuitous theory or even to make a discovery of which the ordinary man has no inkling, but rather to express explicitly and in abstract terms a distinction which is implicitly recognized by the ordinary man in concrete instances. A substance is that of which we say primarily that it exists and which is not predicated of something else in the way in which we predicated pallor of John or redness of a rose, while an accident is that which exists only as a modification of a substance or thing and which is predicated of a substance."¹⁶

Given that the question of the origin, or derivation, of the categories is highly problematic, and that there is virtually no possibility of resolving the matter conclusively, it would seem that there is not much point in pursuing the discussion any further. Many gifted thinkers have devoted considerable time and space to this subject with results that are uneven at best, and contradictory at worst. "In general...reinterpretations of what Aristotle is up to in the categories have tended to follow the philosophical proclivities of the interpreters."¹⁷ Thus while no final judgment on what Aristotle really intends in the Categories neither will, nor can, be made; it is important to be aware that much of what is being said about the Categories in the Twentieth Century has its origin in the Nineteenth, especially in Germany. And paramount among the German commentators is the august figure of Trendelenburg. As Pierre Aubenque remarks, Trendelenburg gave the study of Aristotle's Categories a new life and direction. In fact, Trendelenburg's work was among the first important pronouncements about the nature of the treatise in centuries. Aubenque says:

"Depuis le XIX^e siècle et singulièrement depuis les deux ouvrages de Trendelenburg sur les catégories (De Aristotelis categoriis, (1833), and Geschichte der Kategorienlehre, (1846)), la recherche sur les catégories aristotéliennes a pris un nouvel essor, provoqué à la fois par les progrès de la philologie et l'intérêt nouveau accordé par la philosophie kantienne à l'élaboration d'une table des catégories."¹⁸

It is largely on account of Trendelenburg that we may not permit the question of the origin of the categories to die an obscure death. Trendelenburg was among the first to suggest that the origin of the categories was intimately related to their function, and that if we examine the latter, we shall get a clear picture of the former. In broad terms, Trendelenburg's position is that the categories are based on grammatical distinctions, established by a study of the uses of words, and that, inevitably, they find their home in the realm of logic. The following will help to show how Trendelenburg visualizes the relationship between the categories and grammar:

- 1) substantive - οὐσία
- 2) adjective - ποσόν, ποιόν
- 3) relative comparative - πρὸς τι
- 4) adverb - ποῦ, ποτέ
- 5) verb - κείσθαι, ἔχειν, ποιεῖν, πάσχειν

This interpretation of the categories has found some favour:

"Aristotle's concept of the categories, it should be noted, is based mainly on grammatical distinctions. He was attempting to show that in making any kind of intellectual assertion we are dependent upon fundamental intellectual concepts."¹⁹

But, in general, critical response to Trendelenburg's position has not been overwhelmingly favourable:

"Unfortunately he was not able to furnish any shadow of argument in support of his theory, so that it has met only opposition."²⁰

For his own part, Hamelin brushes aside Kant's objections against the empirical way in which the categories were derived, and goes on to target Trendelenburg directly:

"...puisque les catégories ne peuvent se déduire d'aucun genre, il est clair qu'Aristote ne pouvait que les recueillir empiriquement. Les tentatives pour trouver le fil conducteur dont il se serait servi sont arbitraires. La première en date et la plus spécieuse est celle de Trendelenburg. Pour lui la table aristotélicienne des catégories se fonde sur une classification des parties du discours....Mais il convient tout d'abord d'observer qu'il n'y a pas trace chez Aristote d'une telle classification des parties du discours. De plus le parallélisme de cette classification avec la table des catégories est loin d'être aussi exact que le donne à entendre Trendelenburg: c'est ce qui apparaît avec évidence dans le cas de la relation."²¹

W. D. Ross adds that

"There has been much controversy as to the meaning of the doctrine, largely owing to the fact that we nowhere in Aristotle see it in the making. Trendelenburg held that the distinction between the categories are derived from grammatical distinctions.... But he [Aristotle] had no list of the parts of speech on which he could base a list of categories; the only parts of speech which he recognizes as such are the noun and the verb."²²

And finally, Joseph Owens argues that

"No less an authority than Trendelenburg... attempted to show that the categories were based upon grammatical considerations. He

achieved little success, as he was not able to produce any plausible evidence in support of his view. It would serve no purpose to reconsider the attempt."²³

However, before Owens could rule Trendelenburg out as a serious commentator, the latter's position was resurrected by Emile Benveniste,²⁴ who, curiously, does not mention him by name. In fact, Benveniste seems to be under the impression that the view he is espousing has apparently not been proposed before.²⁵ His blithe disregard of the history of philosophy leads him to think that Aristotle is a Kantian, which in turn leads to the following enormity. He says:

"Il nous sera permis de considérer ces catégories sans préoccupation de technicité philosophique, simplement comme l'inventaire des propriétés qu'un penseur grec jugeait prédicables d'un objet, par suite comme la liste des concepts a priori qui, selon lui, organisent l'expérience."²⁶

After enumerating the list of categories given in chapter four of Aristotle's treatise,²⁷ Benveniste announces his own view which is that

"Aristote pose ainsi la totalité des prédicats que l'on peut affirmer de l'être, et il vise à définir le statut logique de chacun d'eux. Or, il nous semble - et nous essaierons de montrer - que ces distinctions sont d'abord des catégories de langage, et qu'en fait Aristote, raisonnant d'une manière absolue, retrouve simplement certaines des catégories fondamentales de la langue dans laquelle il pense."²⁸

Benveniste's discussion of 'thought categories' and 'language categories' is governed throughout by the belief that the content of thought receives form "...de la langue et dans la langue, qui est le moule de toute expression possible; il ne peut s'en dissocier et il ne peut la transcender."²⁹ He continues:

"Bref, ce contenu doit passer par la langue et en emprunter les cadres. Autrement la pensée se réduit sinon exactement à rien, en tout cas à quelque chose de si vague et de si indifférencié que nous n'avons aucun moyen de l'appréhender comme "contenu" distinct de la forme que la langue lui confère. La forme linguistique est donc non seulement la condition de transmissibilité, mais d'abord la condition de la réalisation de la pensée."³⁰

The debate over whether thought is possible without language is an old one, but recent studies have turned up indications that may be of major importance in resolving the issue. For example, contra Benveniste, research has shown that as they begin to develop a rudimentary capacity for thinking, "...babies develop an important ability to recognize categories. This was once thought to require language - how can the unnameable be identified? - but babies apparently can organize perceptions without a word."³¹

In the context of Benveniste's position, the observations of Jules Vuillemin are extremely à propos:

"...il est illégitime de conclure que la table des catégories de la pensée reflète celle des catégories de la langue. Pour pouvoir aller jusque-là, il faudrait avoir montré que le tableau des catégories empruntées à la langue est aussi le tableau complet de ces catégories quant à la langue. Dans le cas contraire, il y aura sélection et, si le philosophe choisit dans les catégories linguistiques, c'est que son choix n'est précisément plus dicté uniquement par considération de la langue. Or c'est bien ce qui se passe, puisqu'on ne saurait prétendre que la structure des catégories de la langue grecque est exhaustivement exposée dans le tableau d'Aristote."³²

While Michael Frede adds the following:

"Nor does it seem that Aristotle arrives at his list by grammatical considerations as has been proposed again recently by Benveniste. It is true that Aristotle thinks that certain grammatical forms tend to go with certain categories; the active form of verbs, e.g., naturally goes with the category of doing and the passive with the category of suffering. But he is also aware of the fact that grammatical form in this respect can be quite misleading, and he thinks that a large number of fallacies are due to this."³³

The early German commentators were not all of the same mind with Trendelenburg and his disciples, however. There was, for example, the ontological theory of Hermann Bonitz³⁴ who argues that the Categories is a "...first, rough classification of beings. In his [Bonitz's] opinion, τὸ ὄν indicates concrete nature (ens reale)."³⁵ There is thus, in Bonitz, the suggestion that there is an ontological dimension to the categories as opposed to the linguistic/grammatical interpretation. But this view, in turn, attracted the criticism of Otto Apelt who believed that

"Bonitz is wrong in rejecting together with the grammatical origin of the categories (as defended by Trendelenburg), also their deduction from the proposition and their relation to it."³⁶

According to C. M. Gillespie,

"...it is the great merit of Apelt to have firmly grasped the principle that, whatever the applications to which Aristotle put the scheme of the Categories, it is primarily connected with the use of linguistic thought to make assertions about reality and hence with the proposition, the judgment as expressed in language."³⁷

The criticisms brought against Trendelenburg and Benveniste have shown that it is tendentious to view the categories as

emerging from an analysis of language. Now, while I believe it to be true that the categories have no linguistic derivation, this does not mean that they have no linguistic application. But a strong warning must be entered before such an analysis can begin to the effect that it is highly doubtful that Aristotle had such a function in mind in the Categories. This, however, does not mean that modern commentators cannot put the question to Aristotle on his own terms, but merely that there are no explicit grounds in the text itself to show that Aristotle intended the analysis to be conducted on this level.

2. The Number of Categories.

An interesting question that is frequently raised is about the number of categories. The complete list of ten categories is given in the corpus in only two places: In Categories, 4, 1b25-27, Aristotle says:

"Τῶν κατὰ μηδεμίαν συμπλοκὴν λεγομένων
ἕκαστον ἥτοι οὐσίαν σημαίνει ἢ ποσόν
ἢ ποῖόν ἢ πρὸς τι ἢ ποῦ ἢ ποτέ ἢ κεῖσ-
θαι ἢ ἔχειν ἢ ποιεῖν ἢ πάσχειν."

Whereas, in Topics, I, 9, 103b22-25, the list is given as:

"...τί ἐστὶ, ποσόν, ποῖόν, πρὸς τι, ποῦ,
ποτέ, κεῖσθαι, ἔχειν, ποιεῖν, πάσχειν."

In the Topics, the categories are given in exactly the same order as in the Categories, with one significant difference. In the latter treatise, the word used to designate the first category is οὐσίαν, whereas in the former, the term is τί ἐστὶ. In the Categories, οὐσίαν is translated as 'substance', and Aristotle says: "...ἔστι δὲ οὐσία μὲν ὡς τύπων εἰπεῖν ὄλον ἄνθρωπος, ἵππος..."³⁸ "To give a rough idea, examples of substance are man, horse..."³⁹ But, in the Topics, he says.

"ὁδὸν δ' ἐξ αὐτῶν ὅτι ὁ τὸ τί ἐστὶ σημαίνων ὅτε μὲν οὐσίαν σημαίνει, ὅτε δὲ ποιόν, ὅτε δὲ τῶν ἄλλων τινὰ κατηγοριῶν. ὅταν μὲν γὰρ ἐκκειμένου ἀνθρώπου φῇ τὸ ἐκκεῖμενον ἄνθρωπον εἶναι ἢ ζῷον, τί ἐστὶ λέγει καὶ οὐσίαν σημαίνει· ὅταν δὲ χρώματος λευκοῦ ἐκκειμένου φῇ τὸ ἐκκεῖμενον λευκὸν εἶναι ἢ χρῶμα, τί ἐστὶ λέγει καὶ ποιόν σημαίνει." 40

"It is clear, too, on the face of it that the man who signifies something's essence signifies sometimes a substance, sometimes a quality, sometimes some one of the other types of predicate. For when a man is set before him and he says that what is set there is 'a man' or 'an animal', he states its essence and signifies a substance; but when a white colour is set before him and he says that what is set there is 'white' or is 'a colour', he states its essence and signifies a quality." 41

It seems that Aristotle is not concerned with the same sort of thing in both of these treatises. In the Categories, he is speaking of οὐσία, and by his examples, he implies that οὐσία is to be taken as a τόδε τι, the individual concrete 'this'. We may then say that the list of categories in this treatise has an ontological application in the description of the nature of concrete reality. In the Topics, the secondary substances of the Categories are moved to the place of prominence and are indicated by the question: τί ἐστὶ? (What is it?) In his clarifying remarks, Aristotle says that when someone identifies something as 'a man' or 'an animal', he is stating its essence and signifying a substance. There is, then, an apparent change of perspective from the Categories, as a study of things themselves, to the Topics, as a study of things signified. In other words, to signify an οὐσία, or one of the other categories, is to state its essence which answers the question: τί ἐστὶ? The list of categories in the Topics seems

to imply that its application is primarily logical since it envisions the predication of species and genera of substance. This is true even of the non-substantial particulars, e.g., the 'genus' Quality is predicated of the 'species' colour, which in turn is predicated of white. In this case, the 'species' colour is not predicable of the substance, but is 'in' the substance. It is, however, predicable of items lower down in its own categorial tree, i.e. 'this' white.⁴²

It should not be alarming that Aristotle gives the complete list only twice, because I can see no compelling reason to give it even more than once. In virtually every other major treatise when Aristotle is talking about the categories, he usually lists substance, quantity, and quality, the others he characterizes by such phrases as: "...any of the other categories...";⁴³ "...the other modes of predication...";⁴⁴ and "...or the like..."⁴⁵ Having already established the list in two places, Aristotle does not seem to feel himself obliged to repeat the entire thing every time he mentions one or two categories. If he has a particular point he wants to make, he will mention more of them by name than he usually does, but this is rather rare, although two instances spring to mind: In Metaphysics K, 12, 1068a8-10, he lists seven of them: substance, quality; place, action, passion, relation, and quantity. And in Nicomachean Ethics, I, 6, 1096a19-27, he is discussing the application of the term 'good', and argues that there are as many senses of 'good' as there are of 'being'. In all, he lists six categories, saying that good has an application to: substance, quality, quantity, relation, time and place, concluding with the ubiquitous phrase 'and the like'. Simply because Aristotle does not constantly mention all the categories does not, in itself, mean that he has devalued or abandoned the ones conspicuous by their

absence. The reason for their omission may be no more complicated than saying that, in general, when a teacher is making a point about something and illustrating it with examples, he tends to give examples until he is reasonably sure that his students have taken the point, and then he stops.

The number of the categories, though interesting, is not crucial to the main problems being discussed in this chapter, so I shall offer only a suggestion as to why there were ten although, unfortunately, we shall be no further ahead on the question of derivation. As I have noted earlier,⁴⁶ κατηγορία in the Athens of Aristotle's day had, as one of its meanings, a judicial-legal one signifying an accusation. In the Constitution of Athens, Aristotle dwells at some length on court procedure in general and jury selection in particular.⁴⁷ He notes, for example, that there were ten entrances into the courts, one for each tribe,⁴⁸ and one is struck, throughout the account, by the recurrence of the number ten or a multiple of it. The number ten, taken in conjunction with the charges or accusations (κατηγορία) that were heard in the courts, may have induced in Aristotle's mind a correlation between 'ten' and 'κατηγορία'. This point may seem fanciful, but it is at least possible.

We may now, I think, leave this question of the number of categories, and turn our attention to a far more important topic, that is, their nature.

3. The Nature of the Categories:

a) Linguistic: The Category as Term.

That the category is simply an uncombined word, that it is a term, is not the least attractive interpretation of the nature

of the categories. But following the criticisms brought against Trendelenburg and Benveniste, we ought to be wary of any interpretation that seems unwilling, or unable, to disengage itself from a strictly linguistic viewpoint. Indeed, preoccupation with language is a relatively modern phenomenon. By and large, Aristotle did not establish a sharp distinction between language and reality in the sense that language is one thing, and reality something 'other'. Moreover, the modern distinction between language and ontology is not one that appears to have occurred to him. From the beginning he was concerned with the world of sense experience, he was too gifted an empirical observer to have done otherwise, and if his primary philosophical project was the decoding and understanding of the external world, then that is where he had to begin. On the question of language or ontology, we may suspect that Aristotle thought that ontology was the more important:

"Aristotle starts from the view that the objects of the world exist in complete independence of language, and that definite words were only subsequently applied to these objects."⁴⁹

We also tend to concede that there is an ascending spiral in the levels of discourse, beginning with words about things, words about images, concepts, mental states, and finally words about words, but fundamentally,

"There are three interrelated spheres: phonetic structures that are different in different languages, ideas in the mind that are the same for all people, and finally, things which are naturally the same for all people according to Aristotle's realist mode of thought. Phonetic structures are primarily signs for ideas, ideas are images of things; phonetic structures thus refer to things by means of ideas."⁵⁰

This point is absolutely crucial to a proper understanding of the basic thrust of Aristotle's philosophy. Thought is bet-

ween words and things. Thought bridges the gap between language and ontology, thus what is important is not just language and/or metaphysics, but the tie that binds them, and attempting to make Aristotle choose between the two creates a false problem; it also leads to question-begging on the subject of the derivation of the categories themselves. The notion that it is thought that mediates between logic and ontology will be taken up in the following chapter, but I wish to say a brief word now on the subject of the correspondence of language and reality in Aristotle:

"Aristotle by no means held to the rigid name-thing schema, not even in the case of significant phonetic structures. A well known example in this connexion is the word "being" when used as a copula in a proposition: "is" does not of itself signify a thing. However, insofar as it indicates the connection /sic/ between subject and predicate, it has a definite semantic function within the sentence whole.

The same is true of the words "being" and "entity" when used as transcendental determinations. "ὅν" and "ἐν" do not designate special entities, whether individual substances or attributes of individual substances. If, for example, they are attached to an onoma that indicates a substance, no newly appearing determination, no peculiar "factuality" additional to the signified thing is asserted as a result...If the word "white" is attached to the word "person" a new determination is as a consequence added to the person; this word "white" signifies an attribute that belongs to the person. But if the word "one" or "existent" were attached to the word "person" the addition...would express no new factual determination. In this sense, "person" and "one person" are the same, just as "person" and "existent person" are also the same."⁵¹

This is neither more nor less than Aristotle himself says:

"... 'one man' and 'man' are the same thing, and so are 'existent man' and 'man', and the doubling of the words in 'one man and one existent man' does not express anything different..."⁵²

Kant is of the same general opinion on this point:

"By whatever and by however many predicates we may think a thing, - even if we completely determine it - we do not make the least addition to the thing when we further declare that this thing is..."⁵³

Aristotle may have conceded a one-on-one correspondence between language and things on the level of substantive nouns and verbs, but not every part of speech has a correspondent in the world, for example, no one could point to entities in the world and say that they are what 'and', 'or' and 'if' signify, although it is obvious that there must be a minimum of correspondence between language and reality if discourse is to be intelligible. For instance, if two people are talking about a dog, then it is to be hoped that the concept designated by the term is an accurate representation of the thing in the world, and is thus the same for both people. Further, if $\beta\omicron\upsilon\varsigma$, bos, boeuf and ochs did not all represent the concept 'ox', and through it the ox in the world, then language translation would be impossible. I repeat, then, that modern questions about the correspondence of language and reality are anachronistic if applied to Aristotle.

"The significance of this fundamental point is that Aristotle does not have to segregate language in general from things in general as a sharply distinct order. Of course there are two different inquiries mentioned - one logikōs, a dialectical inquiry, and one physikōs, a scientific inquiry - but we would be hard put to construe the first as pure language and the second as pure observation.

There is for Aristotle, then, no general or metaphysical question of the correspondence of language and reality, or whether the structure of language mirrors the structure of reality, such as modern philosophers like to raise about language and about Aristotle. (There are notions of correspondence in his theory of truth, but that is another matter.) It is doubtless a perfectly reasonable question to raise on some presuppositions, but not on Aristotle's."⁵⁴

Those who are committed to the view that the Categories truly belongs to the Organon and that its content is thematically coherent with the alleged purpose of that collection of treatises, i.e. to be the foundation of the science of logic, derive some consolation from the fact that, in the Catégories, Aristotle does speak of uncombined words.⁵⁵ This is thought to be significant because if logic is the science of reasoning based on propositions, then, if we further argue that the basic unit of the proposition is the term, it seems clear that the Catégories studies simple expressions themselves, that these expressions acquire combination in the De Interpretatione, and that the two together form the groundwork for the discursive reasoning in the Prior and Posterior Analytics. And, it is in fact claimed that "...the categories study simple expressions in view of the syllogism..."⁵⁶ Whereas, Hamelin takes a more balanced approach:

"...nous sommes amenés à considérer comme l'objet initial de la logique l'étude des notions séparées dont la proposition est l'assemblage. En un mot la logique doit débiter par l'étude des catégories..."

Les catégories ont pour caractère extérieur - et c'est ce caractère qui leur assigne leur place au début de la logique - d'être des choses qui sont dites en dehors de toute liaison."⁵⁷

It is clear, Hamelin continues, that the distinction between homonyms and synonyms is intended to prevent two things which have only the name in common from being grouped together under the same category.⁵⁸ I do not think it would be going too far to say that they do not belong to the same logical category because they do not belong to the same ontological category, in other words, they are not spoken of in the same way because they are not the same kind of thing.

Recalling an earlier point that interpreters tend to see the categories through the optic of their own philosophical leanings, Edel says that modern linguistic philosophers want to decide

"...precisely where Aristotle is engaging in a linguistic inquiry (and so "doing philosophy"), and where an empirical inquiry (and so "doing science"). This attitude is a familiar one in contemporary linguistic analysis, which has made serious contributions to Aristotelian studies by sharpening our linguistic sensitivity and occasionally by furnishing modern linguistic tools, but at some points it creates obstacles by applying its own doctrines of language rather than looking through Aristotle's eyes at how he saw language."⁵⁹

This observation is in line with what he had said earlier to the effect that

"Linguistic analysis...although it does play a large part in his [Aristotle's] inquiry when he wants greater precision or feels it necessary to fashion a technical term, is not for Aristotle a separate mode of analysis."⁶⁰

Given this, it seems that Aristotle is not engaged, either in the Categories or anywhere else, in a division of the real between language and ontology. In fact, his concern with language is almost dependent upon his concern with logic, and for this reason, I have not been able to keep certain logical con-

siderations entirely out of this section. I have also refrained from quoting the passage in the Categories dealing with 'things said in combination',⁶¹ because I feel that it more properly belongs to the discussion in the next section. In any event, Aristotle would almost certainly have said more about language as such if it was as important to him as some modern commentators suggest. But if the paucity of references in the corpus is any indication, then it must be admitted that language, as such, did not interest him greatly except as an adjunct to his logical investigations, which is what I meant earlier when I said that his concern with language is almost dependent upon his concern with logic. In other words, language does not seem, in Aristotle, to stand on its own as a separate investigation. Aristotle was neither a grammarian, nor a dialectician, his passion was not words but things, especially living things. It seems surprising, therefore, to read that

"...Aristotle is dead because he was, more than perhaps any other writer in the history of Philosophy, superstitiously devoted to words. Even in his logic he is absolutely dependent on the accidents of language, on the accidents of his mother-tongue. His superstitious reverence for words was never out of season."⁶²

While not going to quite such an outrageous extreme, Gomperz observes that

"His [Aristotle's] classification [of categories] is frequently governed by considerations of linguistic expediency, a circumstance which, it must be allowed, ought to have restrained him from applying it occasionally to ontological purposes."⁶³

If the two authors quoted above are being guided, in their judgment on the categories, by Trendelenburg (which is highly possible), then it becomes a bit more clear how they could inter-

pret Aristotle as being more devoted to language than he actually seems to have been. In the final analysis, while it is unquestionably true that the categories are terms, that they are units of language, it is by no means clear that Aristotle thought that their primary function was to be terms considered, either in themselves or in propositions. But this conclusion, given the interrelated nature of language and logic, anticipates the discussion of the next section. Let us turn to it, therefore and consider the next interpretation of the nature of the categories.

b) Logical: The Category as Predicate.

Those who argue for a logical interpretation of the categories take their cue from Aristotle himself, who says:

"Τῶν λεγομένων τὰ μὲν κατὰ συμπλοκὴν λέγεται, τὰ δ' ἄνευ συμπλοκῆς. τὰ μὲν οὖν κατὰ συμπλοκὴν οἷον ἄνθρωπος τρέχει, ἄνθρωπος νικᾷ· τὰ δ' ἄνευ συμπλοκῆς οἷον ἄνθρωπος, βοῦς, τρέχει, νικᾷ." 64

"Of things that are said, some involve combination while others are said without combination. Examples of those involving combination are 'man runs', 'man wins'; and of those without combination 'man', 'ox', 'runs', 'wins'." 65

This problematic text, coupled with what Aristotle says about essential predication,⁶⁶ constitutes virtually the only textual justification in the Categories for a logical interpretation of that treatise. And since I have already devoted a considerable part of Chapter II to the doctrine of essential predication, I shall, at this point, only summarize the results of that discussion. Basically, the term 'predication' is most aptly used when it means 'to be said of a subject' (καθ' ὑποκειμένου λέγεσθαι). According to this interpretation, the

doctrine of the Categories holds that the only 'real predicates' are species and genera. To 'predicate essentially' is to be informative, it is to say what a thing is. Species and genera are informative, they are the only predicates that convey knowledge of primary substances.⁶⁷ It is up to species and genus to say whether this particular thing is an animal, and if so, what kind. Species and genus, then, are things said of, they are predicates.

To return to the quotation cited above, its problematic character is in no small part derived from the fact that its meaning is unclear. Superficially, we might well ask if Aristotle is talking about things that are said, or things that are said. Given that the phrase which introduces the distinction between things said involving combination, and things said without combination, begins with the words: "τῶν λεγομένων...", the balance of probability lies in the direction of things said in combination. Aristotle's examples are: 'man runs', and 'man wins'. Another part of the problem with this passage is the question: Does Aristotle intend his examples of 'things said in combination' to be taken as examples of predication?

Is there, in other words, any distinction between the combination of the concepts 'man' and 'animal', and 'man' and 'wins'? Obviously, there is. In the first case, the conjunction is necessary, it expresses the notion that man is an animal, and is thus an essential predication. There is nothing essential about man running or winning, the conjunction of these concepts is accidental in the sense that they are merely coincident. This is not what Aristotle means by 'said of a subject'. To the extent that winning or running may be 'predicated of' a man, the predication is non-essential, and so the term 'predication' is used only by analogy with 'true' essential predication. Now, we have seen in Chapter II that there is a distinction to be made between essential

predication and non-essential predication, and while I am loath to give away too much of the discussion in Chapter V, I cannot avoid the following observations here. When we say that colour (as 'genus') is predicable of white (as 'species'), then the predication is essential, for white is a colour. When we say that this white is predicable of a man, the predication is non-essential, and is so far from the real meaning of 'predication' that the term ought not to be used at all rather, we ought to say that white is inherent in a man. But this leads to another difficulty: If non-substantial particulars can only inhere in a substance and can never be predicated of it, then why does Aristotle often refer to the categories as 'kinds' or 'classes' of predicates?⁶⁸ To answer this, we must further ask what is being predicated. The Physics provides an interesting clue:

"We may start by distinguishing (1) what exists in a state of fulfilment only, (2) what exists as potential, (3) what exists as potential and also in fulfilment - one being a 'this' /τὸδε τι/, another 'so much' /τὸ δὲ τοσόνδε/, a third 'such' /τὸ δὲ τοιόνδε/, and similarly in each of the other modes of the predication of being /ὄντος κατηγοριῶν/. "⁶⁹

The complexion of the problem changes somewhat once we realize that the categories are the ultimate modes of the predication of 'being', they are the fundamental ways in which things are. Thus, the secondary substances predicate 'being' essentially of primary substances. The non-substance categories predicate 'being' non-essentially of primary substances. But what of the primary substance itself? In the Categories, Aristotle says that "...things that are individual and numerically one are, without exception, not said of any subject..."⁷⁰ This is generally taken to refer to individual non-substances; primary substances themselves are neither 'said of' nor 'in' a given

subject.⁷¹ In the Metaphysics, he says:

"Since the term 'unity' is used like the term 'being', and the substance of that which is one is one, and things whose substance is numerically one are numerically one, evidently neither unity nor being can be the substance of things... in general nothing that is common is substance; for substance does not belong to anything but to itself and to that which has it, of which it is the substance."⁷²

And again,

"...being itself cannot be a substance in the sense of a one apart from a many (for it is common to the many), but is only a predicate..."⁷³

But for all that 'being' is the most universal of predicates, 'being' belongs in the fullest sense to substance,⁷⁴ and primary substance is never a predicate.⁷⁵ So while the secondary substances (species and genera) and the non-substance categories predicate 'being' of primary substances, the latter are not predicable of anything, they are, rather, the highest manifestations of 'being'. Now, we have already seen in the last chapter that Aristotle believes that essence (τὸ τί ἦν εἶναι) is substance in the highest sense, because it is the formal cause and principle of organization of the matter which is coconstitutive of the τὸδε τι, nevertheless, the τὸδε τι combines within itself both formal and material principles accessible to intellection and sensation respectively.^α Aristotle's logic is formal, but is not so purely formal that it can be totally disengaged from the concrete substance that is its ὑποκείμενον. So while the τὸδε τι is the subject of logical predicates, it can never be a logical subject, for the τὸδε τι, as an individual concrete existent, can never be predicated. Those, then, who view the system of categories as ten logical

predicates overlook the fact that substance resists such an analysis. Substance enters logical analysis only to the extent that it can be conceived as the highest manifestation of 'being', and that of which various 'modes of being' may be predicated, but while it is the subject for all, it is the predicate of none. This view, if correct, would call into question Richard Blackwell's assertion that

"The methodological function of the categories...is to provide a means for the discovery of various determinations of real being by an analysis of the various types of predicates in language."⁷⁶

This idea would have a certain appeal for those who believe that at the time the Categories was written, Aristotle had not yet clearly formulated his scientific theories based on empirical observation, and that consequently, he allowed his approach to be governed more by logic and by the dialectic common at his time than by the sophisticated analysis of 'being' that did not come until considerably later. As he notes a few lines further, Blackwell is envisioning a process that reverses the natural order of causality by moving from the symbol to the thing symbolized when one would have expected a prior movement from the thing symbolized to the symbol. However, this approach commits him to a dangerous position. Given the fact that it is by no means evident how the theory of categories emerged as an integral part of the Aristotelian system, this being part of the problem entailed by any investigation of it, then to state that Aristotle followed some particular procedure begs the ultimate question of derivation. Further, as St. Augustine says:

"...the most that I can say for words is that they merely intimate that we should look for realities; they do not present them to us for our knowledge."⁷⁷

To place too great an emphasis on words and their relation to each other in propositions will not provide us with what, in my opinion, is the proper reading of the Categories, however congenial it may be to philosophers of language and logicians.

"...it may be that those who speak of philosophy of language prefer this language as less tainted with the sort of subjectivism which some have discerned even in so acute and comprehensive and so critical a philosopher as Kant, a subjectivism that affects his understanding of categories, encouraging him to deploy a system of categories of understanding rather than categories of being. The Aristotelian categories, however much the list may have been affected by Aristotle's concentration upon the sensible world whose laws were laws of change and decay, are categories of being. They are ways in which things are; they are those fundamental modes of being which we are compelled to affirm in acknowledgement of the reference of thought to that to which it is evidently directed." 78

We have already seen in Chapter II that there are good reasons for believing that the distinction between predication and inherence has more to do with things than with words or sentences, and that it seems to arise from an Aristotelian preoccupation with a problem raised by the theory of Intelligible Forms, namely, on what grounds can y be said of x? W. D. Ross believes that the theory of categories emerged initially from logical investigations, but ended with a series of ontological discoveries.

"It is highly probable that the doctrine began as an attempt to solve certain difficulties about predication which had troubled the Megaric school and other earlier thinkers. Aristotle's object seems to have been to clear up the question by distinguishing the main types of



meaning of the words and phrases that can be combined to make a sentence. And in doing this he arrived at the earliest known classification of the main types of entity involved in the structure of reality."⁷⁹

But, in chapter four of the Categories, when Aristotle introduces the list, he makes it clear that he is speaking of the meaning or significance of uncombined words.⁸⁰ Words have a logical significance only when they are combined with others to form an utterance of a subject-predicate kind. Aristotle does not seem to be concerned with this. Finally, those who argue that the categories have a primarily logical function have not succeeded in overcoming a number of serious obstacles. First, they must show that a logical principle is involved in the derivation of the categories, and all attempts to do this have failed. Second, anyone who believes, like Kant, that the categories were empirically derived and yet nevertheless have a primary function as the basis of logic would do well to consider where this notion leads. It is widely accepted that a logical argument, by definition, leads necessarily to its conclusion. But if it is also argued that the categories were gathered empirically and arbitrarily, then we are left with the paradox that something inherently arbitrary can become the foundation for something following necessarily⁸¹ and it is not clear by any means that this is what Aristotle intended. Be this as it may, there are those who continue to insist that the Categories is primarily a part of Aristotle's logic:

"...Category and Predicable together constitute a joint system of preparing the material for formal dialectical discussion...this system grew up in the Platonic school as the representative of Socratic methodology and was completed by Aristotle ...systematized dialectical rules were the

forerunner of the Aristotelian logic - if this is a correct reading of the historical evidence, it follows that Category and Predicable together may be expected to form the substructure of the logic of Aristotle, especially the scientific logic."⁸²

The above author is taking it as given that the categories have a primarily logical function, and as I have been arguing, it is not at all clear that this is the case. But it should not be forgotten that although I do not believe that the categories have a logical derivation, nor do I believe that logic is their primary function, I do believe that the categories have a logical application.

The logical application of the categories permits the enumeration of the various ultimate classes of predicates, with the exception of substance. In discussing a category in terms of the relation of predicates to a subject (which is what 'substance is'), we are discussing its logical function - the 'being of the proposition', in which an affirmation or denial is made consistent with (or inconsistent with) the mental conjunction of terms and the reality they describe (or not). It is highly doubtful that, on a logical level, Aristotle intended the doctrine of categories to embrace a theory of all predicates any more than on a linguistic level he thought that they exhausted all the parts of speech from which they are allegedly derived. In line with Aristotle's reputation for common-sense realism, G. E. M. Anscombe says:

"...it does make sense to speak of a man's opinions, of his belief, as tending in the positive direction: he says what exists, what qualities things have, what they are, rather than what doesn't exist, what qualities things don't have and what they aren't....Belief is as its objects are. We may accept the idea of certain objects

of belief (whether or not their expression contains a negation) though we need have no general theory of all propositions as ultimately positive or negative in sense. Aristotle's theory of categories is a theory of things which are positive in our present sense. (It is certainly not a theory of all predicates)."⁸³

At first sight, the above looks like a dangerously un-Aristotelian attempt to rehabilitate 'opinion', perhaps in some Platonic sense, but the importance of the text for our purposes is that it underlines the fact that some propositions are neither positive (in the sense that they assert something of something else), nor negative (in the sense that they deny something of something else), the obvious examples are questions and prayers. Anscombe adds parenthetically that the theory of categories is certainly not a theory of all predicates, and this would certainly be true if, as I argue, substance, the first and most important category is not a predicate.

In the final analysis, whether one sees the categories as containing "...discussions necessary for the treatment of true and false expressions in On Interpretation...";⁸⁴ or as "...une classification organique et minutieuse des sens des 'mots non composées'...";⁸⁵ or as "...les différentes significations du mot 'être'...";⁸⁶ or whether one agrees with Ricoeur that: "La catégorie est prise dans la langage même et, si l'on peut dire, dans les manières de parler l'être dans la culture commune...",⁸⁷ there remains yet another fundamental problem with the linguistic-logical-grammatical approaches that remains unaddressed by their proponents, and that is that

"...these views on the categories to a good extent are based on a certain view as to the position of the treatise in the so-called Organon, the collection of Aristotle's

logical writings. The order of the collection clearly suggests the view that in logic we first deal with terms, then with propositions, and finally with arguments, a view still common in modern times. And the ordering of the treatises in the collection thus suggests that the first treatise, the Categories, in providing us with a doctrine of categories provides us with a theory of terms. Hence a traditional tendency to regard the categories as classes of terms or expressions rather than as classes of entities.

But for the following reasons it seems to me that the unfortunate state of our question is largely due to the fact that scholars have been turning to the treatise Categories for an answer. I will leave aside the fact that the present order of the writings of the Organon was only established in the second century A.D., that there is no good reason to think that Aristotle himself had meant these writings to be read in this order, that it is even far from clear whether Aristotle himself would have classified the Categories as a logical treatise, and that hence the position of the treatise in the Organon and the view of logic which goes with it should not have had any influence on what we take categories in Aristotle to be."⁸⁸

The attempt to give a logical interpretation of the categories does not seem able to overcome not only the points just made, but also the refusal of substance to be a predicate. We shall now consider another interpretation, this time an ontological one which, because it sees the categories as the highest modes of 'being', stands a better chance of giving a more convincing account of the nature of the categories than the two already examined so far.

c) Ontological: The Category as Genus of 'Being'.

Let us begin this part of the discussion by saying that ontologically, the categories are 'genera of being'. But no progress will be made along these lines unless we clarify the notion of 'being' which the categories are modes of, and the type of concept it involves. According to Aristotle,⁸⁹ things are equivocal (ὁμώνυμα) if they have only the name in common. Other things are univocal (συνώνυμα) if they share not only the same name, but also the same definition of being (λόγος τῆς οὐσίας) which corresponds to the name. We may then ask whether 'being' is an equivocal concept, or a univocal one. We reply that 'being' is not equivocal because beings have more than just the name 'being' in common, nor is it univocal because not all beings have the same name, let alone the same definition. 'Being', then, must belong to a different class of concepts. Aristotle provides a clue to the special status of 'being' when he says:

"There are many senses in which a thing may be said to 'be', but all that 'is' is related to one central point, one definite kind of thing, and is not said to 'be' by a mere ambiguity. Everything which is healthy is related to health, one thing in the sense that it produces it, another in the sense that it is a symptom of health, another because it is capable of it."⁹⁰

Commenting on this passage, Ross says that terms

"...which are πρὸς ἓν ἢ ἀπ' ἑνός ἢ κατ' ἀναλογίαν ἓν...are intermediate between συνώνυμα, which are καθ' ἓν and have both a common name and a common definition (Cat. 1^a6), and ὁμώνυμα, which have only a common name (ib. 1^a1). ὕγιεινόν and ἰατρικόν answer to the definition of the third class recognized in the Categories

alongside of συνώνυμα and ὁμώνυμα viz. παρώνυμα, things called by a name derived from some other name (1^a12), or... things called by a common name and, though not having the same definition, yet definable by their various relations to one single thing. 'Being' has not always the same meaning, but it is no mere accident that all 'beings' are so called; all stand in some relation to οὐσία, the primary ὄν."91

In the Categories, Aristotle defines paronyms (παρώνυμα) as things which "...get their name from something, with a difference of ending..."92 and this seems to be a nod in the direction of the Cratylus where it is said that some nouns are primitive and some derived.93 This 'third class' (paronyms) are also things which are analogical (κατ'ἀναλογίαν ἔν), and it is among these that Aristotle situates 'being'. Analogy, then, while being neither equivocal nor univocal, combines elements of both, and so could be said to occupy some type of middle ground between them.

"Pros hen equivocity is for Aristotle a compromise between univocity and mere equivocity, a delicate balance between unity and multiplicity in which neither must outweigh the other....One might go even further and argue that since the science of being qua being is foundational in the sense that it supplies him with the conceptual tools through which he can investigate the being of all things in every category, the successful balancing of unity and multiplicity in pros hen equivocity is crucial to his entire mature philosophy."94

It is in the Metaphysics that Aristotle devotes himself to the fullest treatment (now extant) of the analogical character of 'being', particularly as it relates to the categories. He says:

"The kinds of essential being are precisely those that are indicated by the figures of predication [i.e. the categories]; for the senses of 'being' are just as many as these figures. Since, then, some predicates indicate what the subject is, others its quality, others quantity, others relation, others activity or passivity, others its 'where', others its 'when', 'being' has a meaning answering to each of these."⁹⁵

And again,

"Everything that is, then...is said to 'be' because it is a modification of being qua being or a permanent or a transient state or a movement of it, or something else of the sort."⁹⁶

Thus, 'being' is, as it were, the focal point of the categories, they are the genera into which 'being' immediately falls.⁹⁷ Each category is a genus of 'being' in and of itself. It most certainly is not a species of the genus 'being'. R. G. Collingwood missed the point entirely:

"At the base of the system of universals there are universals which are infimae species, not giving rise to any further sub-species. At its top there are universals which are summa genera, not species of any higher genus. ~~Or~~ rather, strictly speaking, there is only one summum genus. The ten "categories" recognized by logic are the ten species of the genus being; they are the γένη τῶν ὄντων, the forms into which being is specified. Thus there is only one pyramid of universals, at its peak the universal of being."⁹⁸

D. M. MacKinnon replies:

"What is needed is to rescue the conception of an ontology from any sort of involvement in logical doctrines and scientific views very properly discarded. It was no accident that Collingwood, in the beginning of his Essay on Metaphysics (1940), prepared the

way for his own conception of metaphysics as a study of absolute presuppositions by criticising the view which he said went back to Aristotle, that treated metaphysics as the science of being. It is true that in the account he gave of this alleged science of being he committed a grave mistake in that he attributed to Aristotle a view which he was careful not to attribute to him in his earlier...An Essay on Philosophical Method (1933), namely, the treatment of being as a generic essence..."⁹⁹

John Cook Wilson adds the following clarification:

"...the formula 'Being is not a genus', although it shows from one point of view an accurate insight into the nature of classification, is extraordinary and misleading when considered in relation to his [Aristotle's] own terminology. He must speak of the categories as categories of being; this being cannot be merely the common predicate of everything, if we are to take the categories literally as predicates. For we cannot state of this 'being-in-general' that it is a substance. On the other hand, if it does mean 'being-in-general', categories would surely have to mean species or kinds, so that being would indeed be a genus and the formula be contradicted. It is most natural to leave categories its proper meaning [i.e. summa genera which are universals having individual things as their particulars] and then 'being' will stand for 'that which is', not for being in general. This again, if all the categories are asserted of it, as the formula 'categories of that which is' naturally implies, could only be complete being, that which is in the fullest sense. Now that with Aristotle is the individual thing."¹⁰⁰

If further evidence is required that Aristotle explicitly denies that 'being' is a genus, one need look no further than the Posterior Analytics¹⁰¹ and the Metaphysics.¹⁰² Furthermore, since 'being' is not a genus, then it cannot be a secondary substance (as all genera are), nor indeed a substance of any

kind. As Edel says: "Aristotle appeals to the categories as ultimate genera of being in a frequent attempt to head off any treatment of Being itself or of the One as ultimate substance."¹⁰³ Hamelin also defends the assertion that 'being' and 'the one' are not genera:

"Puisque les catégories sont des genres, c'est-à-dire quelque chose qui a un contenu réel, Aristote a dû en exclure, ainsi qu'il l'a fait, l'Un et l'Être qui n'ont aucun contenu parce qu'ils conviennent à tout. Ce sont ces termes qui s'élèvent au-dessus des catégories que l'Ecole appellera termini transcendentales. - En tant que les catégories sont quelque chose de réel et d'ontologique, elles excluent en outre des déterminations subjectives comme le vrai et le faux, comme l'acte et la puissance, comme ce que l'Ecole appelle les prédicables: le genre, l'espèce, la différence, le propre et l'accident, ou comme la matière et la forme. On peut dire d'ailleurs que le vrai et le faux, l'acte et la puissance conviendrait à tout, comme l'Un et l'Être."¹⁰⁴

The categories, then, represent not only the ten ultimate genera of 'being', but on the level of an individual concrete substance, they may also be seen as ten kinds of formal perfection in things. And on this level, we must be aware of a potentially serious clash between the doctrines of the Physics and the Metaphysics, a consideration of which would make a useful digression. To begin, let us consider the Physics where Aristotle is occupied with an analysis of being and motion:

"...there is no movement apart from things: for when they change, they always change in primary being or quantity or quality or place; and there is nothing which, because it is common to all, falls into no one category, so there is no movement or change any more than there is being apart from the categories. But the categories apply to

anything in one of two ways: by form and by privation. This is true of any specific primary being and also of any quality (white or black), and quantity (complete or incomplete), any spatial change (up or down...). Consequently there are as many different kinds of movement as there are of being." *104

Viewed in relation to the Categories and the Metaphysics, this text could be problematic. Richard Blackwell discusses the consequences:

"The determinations signified by the categories are found in individual things either actually or potentially, either as form or privation of form. The categories, according to this text, seem to signify the various formal perfections of being. If there are ten categories, then it would seem to follow that there are ten distinct kinds of form in things. But the analysis of motion uncovers only four types of formal perfection...Aristotle's analysis of being as act and potency in the real order brings him to the conclusion that there are only four types of formal perfection in things; namely, substance, quality, quantity, and place...

The ten types of predicates seem to indicate ten types of formal perfection in things. The four types of motion reveal only four kinds of formal perfection in things. The two conclusions do not concur and the disagreement is left unresolved by Aristotle." *105

At first glance, it is difficult to see precisely what Blackwell is arguing. On the surface, what seems to be his point is that the Categories is an early work, and that the Physics is a later one and that, somewhere between the two, Aristotle changed his mind about what constitutes the formal perfection of things. In the Categories it is substance and the nine accidents; in the Physics it is the four headings

revealed by the analysis of motion (i.e. substance, quality, quantity and place). But, are there in fact four? In the Metaphysics, Aristotle says:

"If the categories are classified as substance, quality, place, acting or being acted on, relation, and quantity, there must be three kinds of movement - of quality, of quantity, of place. There is no movement in respect of substance (because there is nothing contrary to substance)..."¹⁰⁶

Blackwell now has another problem of which he seems to be unaware, but for the purposes of his argument, we shall pretend with him that there are four kinds of movement. In the above quotation, Blackwell implies (indirectly) that Aristotle created a problem for himself that he either: (a) did not realize, or (b) did not do anything about to the best of our knowledge. It is also unclear whether Blackwell thinks that the ten categories should be squeezed into the other four. The question remains: Did Aristotle leave the problem unresolved because he wasn't aware that there was one, or because he simply didn't know how to reconcile these two seemingly contradictory positions? I would suggest that Blackwell's difficulty is not a real one. I would suggest further that he is justified in pointing out the apparent dichotomy, but unjustified in the assumption that it poses a serious problem for Aristotle.

In order to establish a ground for his position, Blackwell overlooked the distinction between 'being' and 'becoming'. The resolution of his dilemma is to be found in the very text of the Physics quoted above, in which it is made clear that there is no movement over and above real being. Once again, we must pause over the word 'being'. It has already been observed that the multiple aspects of 'being' are related to each other through their relation to a common ground, namely, being qua being. The principal aspects of this notion have been discussed¹⁰⁷

and being per accidens and being as truth were discarded. This elimination confined us to being according to the modes of the categories, and being as act and potency to which we now turn.

Being as act and potency is the 'being of becoming', it is that aspect of being which is treated by physics. On the assumption that things change substantially, qualitatively, quantitatively and spatially, we see that these types of change correspond to four of the principal categories of 'being'. But, Blackwell seems to have missed the point that substance is one thing and movement is another. No particular in the category of substance could have all of its determinations of being fully described by the four headings under act and potency. Blackwell's problem would have some claim to legitimacy if substance and movement belonged to the same order of 'being', but, Aristotle himself underlines the distinction between the two when he says:

"Physics is in the same position as mathematics; for physics studies the attributes and the principles of the things that are qua moving and not qua being (whereas the primary science [i.e. what is now called 'metaphysics'], as we have said, deals with these only in so far as the underlying subjects are existent, and not in virtue of any other character); and so both physics and mathematics must be classed as parts of wisdom."¹⁰⁸

If there was a sense in which we could say that the four headings under act and potency are 'categories of movement' just as the other ten are 'categories of being', then Aristotle would remain adamant that no category can be resolved into another,¹⁰⁹ the same, therefore, must hold true for groups of categories. And since it is true that it is substance that changes qualitatively, quantitatively and spatially, we have

strong reasons for arguing that movement itself is ontologically dependent upon substance. As Moravcsik notes:

"...Aristotle uses the list [of categories] in his analyses of key concepts such as being and change, and also in his claiming priority for substances. Thus the list has to be complete in the following ways: (i) It must be exhaustive of all that Aristotle takes to be existing. (ii) No reduction of the number of categories should be possible without violating the principle upon which the list is constructed. (iii) No further subdivision of the categories should be possible without violating the constitutive principle. Without these conditions Aristotle could not claim that kinésis can be found in exactly three categories, or that by saying that 'is' has as many senses as there are categories he is giving a significant characterization of being."¹¹⁰

K. K. Berry offers one of the more interesting perspectives on the categories, and in relatively few words, he manages not only to give a quick overview of the problems that have concerned us up to now, but also he has an incisive point to make about the problem currently under discussion:

"Rather...than holding that the categories are 'deduced' from the logic, - from the proposition...and that their source and function is therefore purely grammatical, showing how many meanings the verb 'to be' may have, - it is my opinion that this is their application. Their source is in the Metaphysics, and hence too in the biology and the physics. Surely it could be no mere happy grammatical accident that the verb 'to be' should, of its own nature, have meanings identical with the kinds of becoming, - that there are strictly grammatical categories answering to substantial, quantitative, qualitative and spatial change.

Rather, I should hold, the 'forms' of the kinds of change, - substance, quantity, quality and place (as well as the other categories) are abstracted from the processes in which they occur and are conceptually hypostatized into the 'ultimates' of discursive thinking and made the necessary principles of classification of nature's concrete behaviour."¹¹¹

In the final analysis, the theory of categories, considered ontologically, does not, as in Plato's system, permit the 'emanation' of a series of genera from one supreme genus. On the contrary, Aristotle

"...divise l'être en plusieurs genres irréductibles et incommunicables. Ces genres sont déjà très généraux sans doute, et ainsi le savoir, qui porte toujours sur des universaux, pourra s'élever très haut. Mais il n'y aura pas d'universel suprême et unique d'où l'on puisse faire découler tout le reste. Il y aura des genres coordonnés entre eux, sans passage de l'un à l'autre."¹¹²

Nor are the categories transcendentally ideal, for all that they are universal:

"...un genre est un contenu réellement commun; un genre est, autant que cela est possible à un universel, quelque chose de réel. Puisque les catégories sont des genres, elles sont donc chacune un élément réellement commun dans les choses qui participent de chacune; elles expriment des déterminations réelles de l'être."¹¹³

Gomperz is therefore incorrect when he asserts that

"The enumeration [i.e. of the categories] is intended to comprise the maximum of predicates which can be assigned to any thing or being."¹¹⁴

As noted above,¹¹⁵ Gomperz is unhappy with Aristotle's ontological use of categories, but any theory which holds that the categories are, or should be, merely a compilation of

ultimate classes of predicates, overlooks a crucial point already discussed at some length,¹¹⁶ namely, the fact that the first category, in order of importance, is substance, and substance is not a predicate. It matters not at all that there are different kinds of predication. Whether it is conceived as ontological, i.e. the species as distributed in its members; or as logical, i.e. the assertion of a universal of a particular, Aristotle is perfectly clear on this point:

"Οὐσία δέ ἐστιν ἡ κυριώτατά τε καὶ πρῶτος καὶ μάλιστα λεγομένη, ἥ μήτε καθ' ὑποκειμένου τινὸς λέγεται μήτ' ἐν ὑποκειμένῳ τινί ἐστιν..."¹¹⁷

"...that which is called a substance most strictly, primarily, and most of all - is that which is neither said of a subject nor in a subject..."¹¹⁸

Rodier is right when he says that the categories express a community of essence between themselves and the particulars included in their extension, but he commits the modern error of calling συνώνυμα 'words':

"...la série des genres, des notions qui ont une compréhension, s'arrête aux catégories, et, de prétendus genres communs à toutes les catégories, il n'y en a point. Les catégories sont les plus généraux ou, si l'on préfère, les plus simples de synonymes, c'est-à-dire des mots qui expriment une essence commune aux différentes choses comprises dans leur extension."¹¹⁹

6 In general, I think that Albert Hofstadter is close to the truth when he says that

"...it is obvious that the study of all these /i.e. the study of all the things that are, qua being/, is the study of a relational complex, which would have to include the study of the relations as

well as the terms, since, indeed, the terms as stated are relationally conceived, as generation is conceived as a process toward substance. In this outline of the problem of metaphysics, the categories proper are included together with all other ontically related forms, such as the causes, coming-into-being and passing-away, non-being, and the like.

This, then, is the task of metaphysics, a task which Aristotle was far from completing, having made only a beginning toward its fulfillment. To expect a systematic organization of categories and of other fundamental metaphysical notions in Aristotle is to demand that he should have had a superhuman prevision of the results of an inquiry which he had barely started. The systematic connection of the categories had to be discovered through reflection on the structure of reality as it is revealed in scientific knowledge. The scientific knowledge of Aristotle's day was limited, it stood on the level of common-sense report and observation, Aristotle himself had to create a good deal of it; and even in that elementary status, he was able to make only a partial metaphysical analysis."¹²⁰

In many respects, the modern debate over whether the categories are primarily logical or ontological is only a part of the broader problem of the general theory of categories, as we shall see in Chapter V. But if Aristotle had raised the issue in terms as stark as these, it is unlikely that he would have perceived the basic issues and have cast the problem in the form that modern commentators have foisted upon him. It should also be remembered that the burden of proof for such assertions rests upon those making them, and I think that the proponents of a logical reading have the most to lose. One cannot approach the theory of categories from a strictly logical point of view and

expect any clear-cut encouragement from Aristotle for such a position. If indeed Aristotle had, like Kant, deduced his categories from a table of logical judgments,¹²¹ then we would be justified in expecting to find some evidence of it. None, alas, is forthcoming. In a similar vein, those who would establish a deduction of categories from a corresponding table of the parts of speech, as attempted by Trendelenburg and Benveniste, are being rather too clever. The only 'parts of speech' that Aristotle found significant were names (nouns)¹²² and verbs.¹²³ It simply will not do to read into Aristotle a linguistic sophistication that he did not possess.

On the other side of the debate are those commentators whom I have identified as giving the categories an 'ontological' reading. This, though in some respects incomplete, is probably closer to Aristotle's 'real intention' - so far as this can be established. Even the little we know of his psychological make-up militates in its favour. Temperamentally, Aristotle was an empiricist and he remained one despite twenty years in the Academy. His passion was the world, what things were, and why they behaved as they did. Thus any reading of the categories as a theory of the ultimate modes of 'being' would be closer to the man we know, in other words, a man who dedicated his entire philosophical career to the decoding and understanding of 'being' or reality.

The debate over whether the categories are primarily logical or ontological is a long-standing one, and if the last few pages have been rather thick with the opinions of various commentators, it is only because the issue has been so hotly debated, and I could hardly have ignored so many provocative opinions. If Aristotle had taken the trouble to not only give us a theory of categories, but also to tell us exactly what he had in mind, then none of this would have been necessary. In this

connection, we may well ask:

"Le traité des Catégories expose-t-il une doctrine logique ou ontologique, et, par suite, appartient-il à l'Organon ou à la Métaphysique d'Aristote? Quelques siècles avant...Zeller, Ibn Sînâ soutenait que l'objet de ce traité est essentiellement métaphysique et voulait le retrancher de l'Organon..."¹²⁴

I certainly do not want to be the one to suggest that the Categories ought to be removed from the Organon, but we might remember that it is very possible that Aristotle did not think of the treatise as being quite so logical in nature as some of his modern commentators believe.

Joseph Owens puts the current state of the question with great exactitude when he says:

"...the categories are presented in the Stagirite's Metaphysics as determinations of being and as ways in which being is expressed. Is the doctrine of categories for Aristotle, then, basically metaphysical with logical aftermaths? Or, vice-versa; is it fundamentally a logical growth that blossomed into a metaphysics? Or is it a loose combination of logical and metaphysical doctrines? Or is there an historical development and change from one viewpoint to another? Or does the doctrine of categories pertain to a twilight zone between logic and metaphysics?"¹²⁵

In the following chapter, it will be suggested that it is epistemology that occupies the boundary separating logic from metaphysics, and it is in this area that I feel that the methodological function of the categories can be extended. This discussion, while perhaps not actually proving anything about the epistemological nature of the categories, will, I hope, give us a different perspective from which to view them. I shall suggest that the categories are not only the highest genera of 'being', but that they are also the highest concepts that are minimally necessary to think the real.

NOTES TO CHAPTER IV

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24. "Catégories de pensée et catégories de langue," in Problèmes de linguistique générale, (Paris: Gallimard, 1966).
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28. Benveniste, op. cit., p. 66.
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30. Ibid.
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(Paris: Flammarion, 1967), pp. 76-77.
33. M. Frede, "Categories in Aristotle," in Studies in Aristotle, (D. J. O'Meara, ed.), (Washington: Catholic University of America Press, 1981), pp. 22-23.

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35. de Rijk, op. cit., p. 1.
36. Ibid., p. 2.
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38. Cat., 4, 1b28.
39. Ackrill, op. cit., p. 5.
40. Topics, I, 9, 103b27-33.
41. P. W. Pickard-Cambridge, (trans.), in McKeon, op. cit., p. 195.
42. A point similar to this one has been made before (Chapter II, p. 57.) In general, to speak of the non-substance categories as 'classes of predicates', is to say that they are 'in' substances, but 'predicable of' items lower down in their own categorial tree.
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61. See, Cat., 2, 1a16-19.
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102. Meta., B, 3, 998b2-22; H, 6, 1045b6-7; K, 1, 1059b21-33.
103. Edel, art. cit., p. 50.
104. Hamelin, op. cit., pp. 100-01.
- *104. Phys., III, 1, 200b33-201a8. (R. Hope, trans.), (Lincoln: University of Nebraska Press, 1961).
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117. Cat., 5, 2a11-13.
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α. By this I mean that the formal principle of the τόδε τι qua formal is accessible to intellection, and that the combined form-in-matter is accessible to sensation. I do not, of course, mean that matter qua matter is accessible to sensation. Matter, as such, is 'knowable' but only by analogy. Cf. Phys., I, 7, 191a8-12.

CHAPTER V

THE EPISTEMOLOGICAL ASPECT OF THE CATEGORIES

1. Preliminary Considerations.

Aristotle's implicit anthropology, that is to say, his theory of man and mind is radically other than Plato's, and what separates the world of Aristotle from that of his master is what I would venture to call a variation on 'Occam's razor'. The question for Aristotle is: What is the adequate minimum necessary to think the real? If, in fact, the question is as stated, then, for Aristotle, the world of Intelligible Forms simply isn't necessary, it represents in Suzanne Mansion's phrase, "...une doublure inutile des substances sensibles..."¹ By his refusal to recognize a transcendently ideal world which duplicated the entities of the sensible world, Aristotle was being philosophically economical, but his position also committed him to something rather dangerous insofar as his destructive criticism of the theory of Intelligible Forms carried with it possibilities of the most calamitous kind. In other words, Aristotle had to find a way to cut the umbilical cord that bound the Platonic world of sense to the transcendental ground of its being and its intelligibility, but he had to find a way to eliminate transcendence without thereby throwing the world of sense into anarchy. It would be appropriate to pause at this point to wonder at Aristotle's courage. When we consider the logical and metaphysical perils that he exposed himself to; and when we consider the virtually inconceivable consequences for the entire subsequent history of Philosophy if Aristotle had succeeded in destroying Plato without saving himself, then we are amazed that he ever attempted the revolution he began.

In what preceded this chapter, I had set myself the task of casting doubt on the interpretations of the categories offered primarily by logicians and linguists, and in so doing, I was obliged to fall back on a more classical metaphysical reading. In Chapter IV, we discussed several candidates vying for consideration as the primary meaning or function of the theory of categories, and I shall recapitulate the results of that enterprise in the following section during the statement of the problem to be addressed in this chapter. For the moment, then, let me say simply that it seems that the metaphysical reading of the theory of categories, i.e. the category as 'genus of being' stands a better chance of being closer to what Aristotle intended,² at least when compared with the category as term and the category as logical predicate. But, in its own way, the metaphysical reading is also problematic and, ever-mindful of the truism that one does not successfully avoid one extreme by rushing to the other, I am obliged to restrain myself from putting too many eggs in the metaphysical basket. At any rate, we do have textual grounds in Aristotle for favouring a 'metaphysical' perspective. We may note in this regard that throughout his various discussions of categories, Aristotle seems much taken by the fact that "...of the other categories none can exist independently, but only substance."³ The non-substantial categories do not come to be except as the various modes of being of a concrete unity, or substance.⁴

In essence, I think that in the debate between the logicians and metaphysicians, each side is right, and each side is wrong. Each is wrong to the extent that they want to exclude the other, but each is right in claiming that their particular points of view deserve a hearing in any attempt to assess the function(s) of the theory of categories. The weight of evidence is not all on the side of metaphysics, however. In de-

fence of a logical application of the categories, we may cite Aristotle himself who says:

"The expressions 'this belongs to that' and 'this holds true of that' must be understood in as many ways as there are different categories, and the categories must be taken either with or without qualification..."⁵

What is meant by the above may be clarified in what follows when Aristotle asks:

"...why, although the learning thing is said to 'come-to-be-learned' but not to 'come-to-be' without qualification, yet the growing thing is said to 'come-to-be' /without qualification/?"

The distinction here turns upon the difference of the Categories. For some things signify a this somewhat *τὸδε τι*, others a such *τοτόνδε*, and others so-much *τόσόνδε*. These things, then, which do not signify substance, are not said to 'come-to-be' without qualification, but only to 'come-to-be-so-and-so'."⁶

We have, then, in these two texts, reasons for believing that only substances come-to-be without qualification, whereas to the extent that accidental categories exist, they exist as accidental determinations of a substance. It is also clear that logical assertions in general, and truth relations in particular, are dependent upon the real relations which exist in the categorially structured external world.

The above quotations would seem to tend in the direction of confirming my suspicion in Chapter IV that the categories have a logical application. In other words, the nine accidental categories predicate attributes of a subject logically; whereas ontologically, they predicate 'being' of a substance. Is, then, the ontological οὐσία the same 'thing' as the logical ὑποκείμενον? Is the 'thing' as it exists and the 'thing'

as it is talked about the same thing? Is each of these an οὐσία which stands at the head of its own system of categories, the one being ontological, and the other being logical? These are a few of the questions I shall try to answer in this chapter. It is certainly not enough merely to assert the possibility that the relation of accidents to a substance is co-extensive with the relation of predicates to a subject. We must inquire into the grounds for suggesting that these two categorial systems may be commensurable, and if they are, then what consequences may be expected to follow? What seems fairly obvious immediately is that no ontological system of categories, i.e. the categories involved in the structure of a concrete particular existent, will suffer itself to be 'translated' from an 'existential' extramental system to a 'non-existential' mental system without an intervening series of mediations. We must, therefore, examine the nature of these mediations which will, in turn, tell us something about the interaction of the Aristotelian ψυχὴ and the external world.

2. The Problem.

In Chapter IV, we examined and discarded two important possibilities as to the nature of the categories. One was that the category is a unit of language, or a linguistic term. This was judged to be inadmissible for consideration as the primary function of the categories because it presupposed a greater linguistic sophistication on Aristotle's part than can be proved. Furthermore, it seems probable from what he himself says⁷ that the only 'parts of speech' that he found significant were the noun and the verb. The other possibility was that the categories are primarily logical, that they are predicates. This was ruled out of contention on the grounds that while it is true that the

nine non-substance, or accidental, categories can be called predicates, substance, the most important category cannot. These eliminations left us with only one further possibility i.e. the category as 'genus of 'being'', and it must be admitted that Aristotle says a good deal in favour of this candidate.⁸ However, for all of our satisfaction with an ontological/metaphysical reading of the categories, we remain plagued by a curious uneasiness which manifests itself in the suspicion that while metaphysics may be a or even the most important part of the picture, it is not the whole picture. If one is possible, the complete picture would account for the ontological primacy of the categories, but it would also show how the categories have a logical, and by extension, a linguistic application.

It is the contention of this chapter that what I shall call 'epistemology' holds the key that permits the 'translation' of the ontological system of categories to a logical one. In other words, that the ψυχή, functioning as an agent, is capable of effecting a reduction from potency to act in the process of knowing, from the categories as ontologically actual but potentially knowable, to actually known. This discussion will take us into the realm of something (knowledge) that is neither 'the real' as such, nor 'logic' as such, but which is capable of standing between them and, not being one or the other, is able to effect a 'translation' of one to another. To lay the groundwork for this discussion, it will be necessary to look into the hierarchical grades of ψυχή and the hierarchical functions of the human ψυχή. In addition, we shall examine such topics as the relation of universals to particulars, the difference between forms and universals, where Aristotle's universals 'come from', and a number of related questions which will be treated as the need arises. Essentially, what is at stake in this chapter is that if I can provide good reasons for believing that 'episte-

mology' is the connecting link between 'ontology' and 'logic', then I will hope to have shown thereby how the methodological function of the categories might be extended, and so achieve the aim of this dissertation.

3. The Process of Coming to Know the Universal.

Before undertaking the discussion proper of this topic, it is necessary to set out the hierarchies of ψυχή in general and the functions of the human ψυχή in particular on which much of the subsequent discussion will depend.

Let us begin, then, with a clarification of what Aristotle understands by the term ψυχή.

"ἀναγκαῖον ἄρα τὴν ψυχὴν οὐσίαν εἶναι ὡς εἶδος σώματος φυσικοῦ δυνάμει ζῶην ἔχοντος. ἡ δ' οὐσία ἐντελέχεια. τοιούτου ἄρα σώματος ἐντελέχεια." ⁹

"Hence the soul must be a substance in the sense of the form of a natural body having life potentially within it. But substance is actuality, and thus soul is the actuality of a body as above characterized." ¹⁰

A few lines further, Aristotle adds:

"Καθόλου μὲν οὖν εἴρηται τί ἐστὶν ἡ ψυχή· οὐσία γὰρ ἡ κατὰ τὸν λόγον. τοῦτο δὲ τὸ τί ἦν εἶναι τῷ τοιῷδὲ σώματι..." ¹¹

"We have now given an answer to the question, What is soul? - an answer which applies to it in its full extent. It is substance in the sense which corresponds to the definitive formula of the thing's essence. That means that it is 'the essential whatness' of a body of the character just assigned." ¹²

In order not to be led too far away from my primary purpose, I shall not pursue the definition of ψυχή very much fur-

ther.¹³ It is, however, worthy of note that at De Anima II, 3, 414a28-415a13, Aristotle builds on his discussion in the previous chapter in order to distinguish between the various types of $\psi\upsilon\chi\acute{\eta}$ and to state what type of organism has what type of $\psi\upsilon\chi\acute{\eta}$. In general, he distinguishes between living bodies, and non-living bodies. What makes the difference between them is that whatever type of body has $\psi\upsilon\chi\acute{\eta}$ in it displays life.¹⁴ Thus, the presence of $\psi\upsilon\chi\acute{\eta}$ in a body is sufficient to account for the fact that it is alive, and if we adopt the maxim that action follows being, in other words, that what the thing is will determine what it does, then we may say that just as fire does heating activity because it is hot, so the living body does living activity because it is alive. We may further expect that the 'being alive' of a body will manifest itself in 'living operations' or 'psychic powers'. For example, in the case of a plant, we see that its living operations include self-nutrition, growth and reproduction. These powers are the hallmarks of the 'vegetative $\psi\upsilon\chi\acute{\eta}$ '. In the case of animals, the 'sensitive $\psi\upsilon\chi\acute{\eta}$ ' possesses all of the powers plants have in addition to sensation, and if "...any order of living things has the sensory, it must also have the appetitive..."¹⁵ What Aristotle means by this is that if animals are endowed with sensation, then they must also be endowed with appetite (or desire), particularly for their food. In addition, animals possessing sensation are also endowed with locomotion.¹⁶ The reason for this would appear to be that plants have no need of locomotion, they sink their roots into the earth and derive their sustenance directly, whereas animals are not rooted to the earth, they move about from place to place and thus require the power to see their food and to desire to eat it.

Man, in common with both plants and animals, has a $\psi\upsilon\chi\acute{\eta}$ endowed with the powers of self-nutrition, growth and reproduction.

In common with animals, man has the powers of sensation, appetite and locomotion, but what makes man specifically and radically distinct from the other animals is the power of thinking, or mind ("...τὸ διανοητικόν τε καὶ νοῦς...")¹⁷ Since only man possesses this rational principle, then only man ("...and possibly another order like man or superior to him..."¹⁸) is capable of intelligence and deliberation.¹⁹ The human ψυχή is also defined by Aristotle as "...a substance ᾧσ(α) capable of receiving knowledge."²⁰ Therefore, man is the only animal capable of acquiring knowledge.²¹ This is in line with his assertion in the Posterior Analytics that of the acquisition of developed states of knowledge, the ψυχή "...is so constituted as to be capable of this process."²² In fact, the very function of man is to be in tune with his particular excellence, i.e. to follow the rational principle.²³

Aristotle's account of the grades of ψυχή contains many interesting features, not the least of which is the fact that the lower grades of ψυχή are perfectly functional without the higher ones, but not vice-versa. In other words, plants, which possess the lowest grade ψυχή can get along perfectly well without the need for sensation, appetite and locomotion. The only powers plants require are the ones they have, i.e. self-nutrition, growth and reproduction, they do not need any higher powers. Animals, however, possess the higher powers just enumerated, but these powers would not be of much use to them if they did not also have the lower powers. That is, without the power of self-nutrition, for example, the animal could sense, desire, and move about, but not for long. In the case of man who possesses the highest power, that of reason, he also requires the lower powers which he has in common with plants and animals. Thus, for Aristotle, the human ψυχή, specifically distinguished by reason, nevertheless depends upon the lower grades of ψυχή for

its continued survival. In the process of thinking, the particular manifestation of the highest grade of $\psi\upsilon\chi\eta$, there is an analogous dependence on the lower functions of the thinking process, i.e. sensing, imagining and remembering. That man has these lower 'psychic functions' in common with the other animals is obvious. For example, most animals clearly possess the five senses, and in many cases, these are even more acutely developed than in the case of man. Further, animals must be capable of some degree of imagination in order that they be able to assimilate and deal with their environment. Finally, most animals must also be able to remember. It would be terrible if a man's dog never remembered him and went for his throat every time he walked into the house.

Just as the highest grade of $\psi\upsilon\chi\eta$ is dependent upon the two lower ones and is, to some extent, inseparable from them, so the highest manifestation of the highest $\psi\upsilon\chi\eta$ is also dependent upon the lower 'psychic functions' namely, sensing, imagining and remembering. These functions, then, are the necessary conditions if any thinking is to take place, and they are of sufficient importance to justify a separate discussion of each.

a) Sensing.

Apart from the minor treatise De Sensu, Aristotle makes most of his important observations about sensation in the De Anima, Book II, chapters five through twelve. In general, the object of sensation is a substance, i.e. something which is compounded of both form and matter.²⁴ In contrast to nutrition, in which the body assimilates the matter of an object while discarding its form, in sensation, the $\psi\upsilon\chi\eta$ assimilates the form of an object while leaving its matter 'outside'.²⁵ The

effect produced in the $\psi\upsilon\chi\eta$ by the object through the sense organ is thus not material, but formal.

In his general account of sensation, Aristotle seems to be aware that there is a 'gap' between the sensing subject and the object which is sensed, and that this gap must be closed in a way that does no violence either to the object's integrity as an extramental existent, or to the $\psi\upsilon\chi\eta$'s independence of the object in spite of its affection by it. Clearly, some type of union is required, equally obvious is that the union cannot be material in the sense that there is a physical coalescence between the two. Therefore, the only union possible is an immaterial, or formal, one. Through the process of sensation, the object is not transported into the $\psi\upsilon\chi\eta$ in all of its material and formal determinations. What occurs is that the particular sense grasps its proper object in a manner analogous to the process of nutrition. In this case, the 'matter' is assimilated by the body and the 'form' is discarded; in sensation, the 'form' is assimilated and the 'matter' is left 'outside'.^a

The entire account of sensation in the De Anima emphasizes Aristotle's belief in the passivity of sensation, that it depends on what is external to the sensing subject. Moreover, he relies greatly on the distinction between potency and act in his account of sensation.²⁶ In particular, although his meaning is clear, he chooses an unfortunate analogy when he says:

"It is clear that what is sensitive is so only potentially, not actually. The power of sense is parallel to what is combustible, for that never ignites itself spontaneously, but requires an agent which has the power of starting ignition; otherwise it could set itself on fire, and would not have needed actual fire to set it ablaze."²⁷

As I said above, the analogy is unfortunate since spontaneous combustion is a recognized phenomenon, nevertheless, this fact does not materially alter the validity of what Aristotle is saying about sensation. His point is that whatever is capable of sensation is so only potentially until such time as it is brought into contact with an external entity that contains the qualities which are the proper objects of the special senses. Thus, there can be no sensation except in the presence of an external object which triggers the process. For example, a ball which is actually red has the power to produce the sensation of red in the sense organ. The sense organ itself is only in potency with respect to the redness, but when the seeing eye comes into contact with the ball, the eye sees red and the ball is seen as red. This is the sense of what Aristotle means when he says:

"...what has the power of sensation [the eye] is potentially like what the perceived object is actually; that is, while at the beginning of the process of its being acted upon the two interacting factors are dissimilar, at the end the one acted upon is assimilated to the other and is identical in quality with it."²⁸

In other words, at the beginning of the process of sensation, the sense organ and the quality in the object are dissimilar. In the process itself, the quality 'acts upon' the organ, and the power in the organ is 'assimilated' to the actual quality and is thus identical in quality with it. In the final analysis, the eye seeing the red ball and the red ball being seen are two aspects of the same operation. As a side note, John Ruskin may have thought that he was on Aristotle's side when he rather crankily observed:

"The word 'Blue,' say certain philosophers means the sensation of colour which the human eye receives in look-

ing at the open sky, or at a bell gentian...

Now...be it observed that the word 'Blue' does not mean the sensation caused by a gentian on the human eye; but it means the power of producing that sensation; and this power is always there, in the thing, whether we are there to experience it or not, and would remain there though there were not left a man on the face of the earth...whatever philosophy may say to the contrary."²⁹

Aristotle would not, perhaps, go quite so far as to say that 'blue' is only a power of producing the sensation of blue, because he evidently believes that the qualities of things are, in themselves, actual. But, he would agree that the actual quality has the power of producing the sensation of that quality.

The five factors in the structure of sensation are given by Aristotle at De Anima II, 5-7, and these are elegantly summarized by John Wild:

"...first, some quality capable of producing /an/...effect on some transmitting medium in contact with the sense organ; second, the transmission of the physical species to the organ via the medium; third, the abstraction of this form from its matter by the sense faculty in the organ; fourth, the sensible species thus abstracted (the sound middle C, the color yellow...); and fifth, the material object which is made immaterially present, or known, by this species."³⁰

For Aristotle, what might be called the 'objective stimulus' is the cause of movement in the organ and the movement in the organ, when it apprehends the stimulus, produces an effect in the ψυχή.

"The activity of the sensible object and that of the percipient sense is one and the same activity, and yet the distinction between their being remains. Take as illustration actual sound and actual hearing: a man may have hearing and yet not be hearing, and

that which has a sound is not always sounding, But when that which can hear is actively hearing and that which can sound is sounding, then the actual hearing and the actual sound are merged in one..."³¹

As we shall see shortly, Aristotle believed that each of the five 'special senses' has organs designed to receive the sense qualities that are its particular objects. However, he was not unaware that impressions received through the various senses 'combine' in some way to give a 'picture' of some particular object. The question is: How do sensations of qualities such as 'orange', 'hot', and 'solid' give rise to a perception of a concrete 'this', e.g. a piece of smoldering charcoal? The so-called common-sensible, i.e. a perception which serves as the object for more than one sense acting in common, led Aristotle to theorize that there was a 'common sense' whose function was to synthesize the various elements of sensation into perceptions of wholes. As he says:

"Each sense...is relative to its particular group of sensible qualities: it is found in a sense-organ as such and discriminates the differences which exist within that group; e.g. sight discriminates between white and black, taste sweet and bitter, and so in all cases. Since we also discriminate white from sweet, and indeed each sensible quality from every other, with what do I perceive that they are different? It must be by sense; for what is before us is sensible objects...

Therefore...discrimination between white and sweet cannot be effected by two agencies which remain separate; both the qualities discriminated must be present to something that is one and single. On any other supposition even if I perceived sweet and you perceived white, the difference between them would be apparent. What says that two things are different must be one; for sweet is different from white.

Therefore what asserts this difference must be self-identical, and as what asserts, so also what thinks or perceives. That it is not possible by means of two agencies which remain separate to discriminate two objects which are separate is therefore obvious; and that...it is not possible to do this in separate moments of time may be seen if we look at it as follows. For as what asserts the difference between the good and the bad is one and the same, so also the time at which it asserts the one to be different and the other to be different is not accidental to the assertion (as it is for instance when I now assert a difference but do not assert that there is now a difference); it asserts thus - both now and that the objects are different now; the objects therefore must be present at one and the same moment. Both the discriminating power and the time of its exercise must be one and undivided."³²

On account of its clarity, this rich, if lengthy, passage requires no elaborate exegesis, however, the following points would be in order: a) Lest there be any mistake about what he is talking about, Aristotle selects perceptions of two senses that cannot be interchanged. Given that the eye cannot taste, and the tongue cannot see, it is impossible that any distinction between white and sweet be made by the sense organs themselves. b) Any distinction that is made between the two must then be made by some 'common faculty' which, not being either, is capable of perceiving both.

The need for a unifying factor at the level of sensation prefigures the later discussion of the need for a unifying factor at the level of intellection, and this latter role is performed by 'mind'. We are later informed that mind ($\nu\omicron\upsilon\varsigma$) contains "...some element common to it with all other realities which makes them all thinkable."³³ In other words, what mind

has in common with all other realities is to be 'thinkable'.
As Aristotle says:

"Mind is itself thinkable in exactly the same way as its objects are. For...in the case of objects which involve no matter, what thinks and what is thought are identical; for speculative knowledge and its object are identical....In the case of those which contain matter each of the objects of thought is only potentially present. It follows that they will not have mind in them (for mind is a potentiality of them only in so far as they are capable of being disengaged from matter) mind may yet be thinkable."³⁴

The important difference between the special senses, the common-sense and mind is that the mind is 'thinkable', in other words, it can think itself and its own operations. The senses, on the contrary, cannot sense themselves. In the end, the only real point of comparison between the common sense and the mind is that each is, in its own sphere of operations, a unifying factor.

Ultimately, the information provided by the sense organs, e.g. that this sense quality is white, and that this sense quality is sweet, passes from the sense organs (which in themselves are incapable of distinguishing between the two) to the common-sense which, in one act, apprehends both sense impressions and determines a) that this sensation of purple and this sensation of sweet are distinct from each other, and b) that they both belong to this grape. The common-sense must, then, be a kind of unity for, to refer back to the long text quoted above,³⁵ Aristotle asserts that: "What says that two things are different must be one..."³⁶ Aristotle considers the mind to be an εἶδος εἰδῶν, a form which employs forms,³⁷ and on the relation between knowledge and sensation to their objects, he says:

"Knowledge and sensation are divided to correspond with the realities /i.e. their objects/, potential knowledge and sensation answering to potentialities, actual knowledge and sensation to actualities. Within the soul the faculties of knowledge and sensation are potentially these objects, the one what is knowable, the other what is sensible. They /i.e. these faculties/ must be /identical with/ either the things themselves or their forms. The former alternative is impossible: it is not the stone which is present in the soul but its form.

It follows that the soul is analogous to the hand, for as the hand is a tool /ὄργανόν/ of /i.e. which employs/ tools /ὄργανων/, so the mind is the form of forms and sense the form of sensible things."³⁸

Aristotle devotes considerable space to the question: Is the common-sense a sixth sense or a composite of the five others,³⁹ and states his belief that it is not a sixth sense.⁴⁰ The common-sense operates through the common nature of all five senses, and this is in keeping with his one-world perspective, otherwise we would not perceive one world, but five, one for each sense.

This brings to an end our discussion of the salient features of the first operation of the intellect, and we turn now to the second.

b) Imagining.

In general, images (φαντάσματα) are the forms of particular sense objects which have been disengaged from the matter of these objects. Without images, the mind would have nothing upon which to work. Images are derived from sensation which is the only immediate source of cognition.

"...no one can learn or understand anything in the absence of sense, and... when the mind is actively aware of anything it is necessarily aware of it along with an image; for images are like sensuous contents [*i.e.* objects perceived] except that they contain no matter."⁴¹

The 'materials' of thinking are provided by imagination, and in this case, images serve as if they were perceptions,⁴² Aristotle insists that thinking takes place in images,⁴³ and never without them.⁴⁴ "Imagination is the intermediary between perception and thought."⁴⁵ Without images, no universal concepts could be constructed. Aristotle compares the process of concept formation to a "...rout in battle stopped by first one man making a stand and then another, until the original formation has been restored."⁴⁶ He says:

"When one of a number of logically indiscriminable particulars has made a stand, the earliest universal is present in the soul: for though the act of sense perception is of the particular, its content is universal - is man, for example, not the man Callias. A fresh stand is made among these rudimentary universals, and the process does not cease until the indivisible concepts, the true universals, are established: e.g. such and such a species of animal is a step towards the genus animal, which by the same process is a step towards a further generalization."⁴⁷

This particular text obliges me to interrupt my discussion of the imagination in order that we might consider the problem of 'coming-to-know-the-universal'. This is of such importance as to justify a somewhat lengthy digression.

The above quotation is noteworthy in many respects, but if one point deserves attention it is that the text illustrates just how far Aristotle has come from Plato's separated Forms. Although Aristotle's universals are intelligible like Plato's, they have their origin in the separation of forms from sensible

particular instances, and this, in itself, is a far cry from the doctrine of ἀνάμνησις. It will be recalled from Chapter I that the theory of reminiscence is what allowed Plato to connect the world of Intelligible Forms and the world of sense through the act of knowing, given that the soul, now embodied in the world of sense, had previously been in the world of the Forms, and that experiences in the former lead to reminiscence of the latter. Plato's theory of universals is ante rem in that they are prior to and separate from the individuals in the sensible world which instantiate them. Since Plato's Forms are not 'in' things, he is not required to show how the mind gets them 'out'. Plato, then, does not need a doctrine of separation, nor indeed does the theory of reminiscence make one possible. Aristotle, however, is an entirely different matter.

As was seen in Chapter I, Aristotle avoids the difficulties of the Platonic χωρισμός by denying that the forms of things are separate from the things themselves. But, the denial of the theory of Intelligible Forms also involves a repudiation of the doctrine of ἀνάμνησις, so that Aristotle was faced with the necessity of finding a new basis for his theory of knowledge. In particular, he must argue that although forms are not ontologically separate or separable from the matter they inform, they are, however, conceptually separable by the mind. And on this point, I wish to draw a distinction between 'abstraction' (ἀφαίρεσις) and 'separation' (χωρίζεσθαι). The doctrine of abstraction, both during and after the Mediaeval Period, came to acquire a meaning far different from the original Aristotelian term. In other words, 'abstraction' tends to mean what is called 'total abstraction', a process whereby the universal, or essence, is abstracted from singulars. As Owens very rightly points out, ἀφαίρεσις has no such meaning

in Aristotle.⁴⁸ Aristotle most often uses ἀφαίρεσις in connection with the objects of mathematics, mathematical features of things can be thought of separately, but are, in reality, inseparable from things.⁴⁹ In addition, ἀφαίρεσις does not signify the separation of the form of a sensible object from its matter, but rather it refers to the suppression by the mind of all accidental features in the thing save the mathematical. Thus, for Aristotle, what we call 'abstraction' is, for him, not ἀφαίρεσις but rather χωρίζειν.^β

To return to the problem of coming to know the universal, we see that there is no doctrine of abstraction in any sense in Plato. However, there is a passage in the Phaedrus which speaks of a "...passing from a plurality of perceptions to a unity gathered together by reasoning..."⁵⁰ Now, while there is no question that Plato is speaking of 'separation', it is entirely possible that, for other reasons, this phrase struck a responsive chord in Aristotle, indeed, we later find him talking about a universal which, owing to the persistence of repeated sense impressions, is a 'systematization' of them.⁵¹ This process could be called knowledge of universals through induction (ἐπαγωγή). In speaking of the necessity of the senses in the process of induction, Aristotle says:

"...the loss of any one of the senses entails the loss of a corresponding portion of knowledge, and that, since we learn either by induction or by demonstration, this knowledge cannot be acquired. Thus demonstration develops from universals, induction from particulars; but since it is possible to familiarize the pupil with even the so-called mathematical abstractions only through induction - i.e. only because each subject genus possesses, in in virtue of a determinate mathematical

character, certain properties which can be treated as separate even though they do not exist in isolation - it is consequently impossible to come to grasp universals except through induction. But induction is impossible for those who have not sense perception. For it is sense perception alone which is adequate for grasping the particulars: they cannot be objects of scientific knowledge, because neither can universals give us knowledge of them without induction, nor can we get it through induction without sense perception."⁵²

As this text indicates, no universal can be grasped without induction, and induction reveals the universal through repeated exposure to particular instances of it. Deduction, on the contrary, presupposes a prior process of induction to the universal from particulars because deduction, or demonstration, proceeds from universals. For Aristotle all scientific knowledge is by demonstration,⁵³ and demonstration is defined as a kind of syllogism, ("...but not every syllogism is a demonstration.")⁵⁴ A syllogism, in turn, is a "...discourse in which, certain things having been stated, something other than what is stated follows of necessity from their being so."⁵⁵ The classic example of a syllogism is:

All men are mortal.
Socrates is a man.
Therefore, Socrates is mortal.

In order to demonstrate that Socrates is mortal, it is sufficient to show that Socrates belongs to a class of things (men) of which something (mortality) is predicated universally. The statement: all x is y, (all men are mortal), is commensurately universal, i.e. where there is an x, it necessarily follows that y will also be present. But all of Aristotle's universals must be commensurable, the reason is that knowledge is of universals, and ~~universals~~ are derived through repeated exposure

to the particulars that they are the universals of. If the universals were not 'measurable' by the same standard as, or specifically identical to, the particulars, then the universal could not give any knowledge of the particulars.

To some extent, the Aristotelian doctrine of universals may be said to have had a partial origin in the work of his two immediate predecessors - Socrates and Plato. Was there some thing, or quality 'x' such that it could be conceived and was intelligible apart from the many particular instances of it? Would the dialectical search for definitions help to uncover this 'it'? Plato apparently thought so and declared that the true essences of things were separate from the things themselves and existed in the transcendental world of Intelligible Forms. Since these separated Forms are the basis of knowledge, and are not revealed by sense perception, Plato postulated that the soul had a prior existence in the world of the Forms, and that perception of objects in the sensible world triggered a recollection of what the soul had already known. On the one hand, Aristotle agreed with Socrates and Plato that there are such things as universals and that these are what definitions are concerned with. (A definition is a formula which "...indicates the essence..."⁵⁶). But, on the other hand, he disagreed with Plato that the essences, or forms, are in any way separate.⁵⁷ On the contrary, they are 'in' the things of which they are the essences. Or, more accurately, the essence (τὸ τί ἦν εἶναι) of the 'this' (τόδε τι) is vehiculated to the τόδε τι by its species (εἶδος). The essence as form (εἶδος) combines with matter (ὕλη) to become one of the two constitutive principles of the τόδε τι. The image of the τόδε τι that is grasped by the ψυχή during the act of sensation is specifically identical with the form of the τόδε τι. But,

what is grasped in sensation is not the essence, this would be 'total abstraction' if it occurred in Aristotle, which it does not. The essence, or universal, is not grasped in sensation, what is grasped is the particular form of the individual. The particular form grasped in sensation is in turn combined with other forms of the same kind, and in this process, the ψυχή extracts the features which all of the particulars have in common and declares them to be essential and universal. Thus, while the particular form is not in itself universal, it is capable of universalization. The universal as finally established in the ψυχή, is commensurable with its particulars because it is specifically identical with them. Although it is for different reasons, Aristotle agrees with Plato that scientific knowledge, i.e. knowledge of principles that are universal and necessary, does not come directly from sense perception:

"Scientific knowledge is not possible through the act of perception. Even if perception as a faculty is of 'the such' [τοιοῦδε] and not merely of a 'this somewhat' [τοῦδε], yet one must at any rate actually perceive a 'this somewhat', and at a definite place and time: but that which is commensurately universal and true in all cases one cannot perceive, since it is not 'this' and it is not 'now'; if it were, it would not be commensurately universal - the term we apply to what is always and everywhere. Seeing, therefore, that demonstrations are commensurably universal and universals imperceptible, we clearly cannot obtain scientific knowledge through the act of perception..."⁵⁸

Once again, we see a demonstration of Aristotle's belief that, though perception does not give scientific knowledge directly, nevertheless, scientific knowledge would not be possible without perception.

We may now, at least for the moment, abandon our discussion of the problem of coming to know universals, and return to the topic of the imagination.

To restate the key points concerning the imagination, then, it is the faculty in which the separated forms of sensible objects, grasped by sensation, are presented to the thinking process as the materials upon which it is to work. But, to play any part in the thinking process at all, the images must not only be present, they must also be retained. This consideration leads us directly to the next section.

c) Remembering.

In general, the process of thinking requires sensory experiences which are the raw materials used for the derivation of images. But, the need for the retention of images explains the presence of a special function of the imagination, i.e. memory.

In the De Anima, Aristotle had held that "...imagination is that in virtue of which an image arises for us..."⁵⁹ And he is further clear on the fact that thinking takes place in terms of images,⁶⁰ and cannot take place without them.⁶¹ In the De Memoria et Reminiscentia, Aristotle asserts that memory belongs to the same part of the ψυχή as the imagination.⁶² The basic difference between the two is that an image is usually a representation of an object as present, whereas "...memory relates to the past."⁶³ Thus, a memory image is an image of an object which is not present⁶⁴ and in the act of remembering is included "...the consciousness of 'formerly'..."⁶⁵ Memory, then, represents images of things no longer present, combined with an awareness that they belong to the past. Since the fa-

culty of memory belongs, as Aristotle observes, "...directly and essentially...to the primary faculty of sense perception...",⁶⁶ it is not something that belongs to man alone, hence "...certain other animals possess memory."⁶⁷ The mental image, or picture, is compared by Aristotle to a portrait, and it is the lasting quality of the image that we call memory.

"...we must conceive that which is generated through sense-perception in the sentient soul, and in the part of the body which is its seat - viz. that affection the state whereof we call memory - to be some such thing as a picture. The process of movement [sensory stimulation] involved in the act of perception stamps in, as it were, a sort of impression of the percept, just as persons do who make an impression with a seal."⁶⁸

Memory is shared by man with certain other animals on account of its relation to the general function of sensation, but in man, it takes on an additional status in that it is a function in and of itself. What gives memory this distinct status in man is that its object is distinct, i.e. the past as past. In most animals, man included, the activity of memory, i.e. the representation of past sense-impressions, is spontaneous, but as a further sign of the 'psychic' discontinuity between man and the other animals, Aristotle informs us that there is an additional function related to memory which belongs to man alone, and this is 'recollection' or 'reminiscence'.⁶⁹

"Acts of recollection, as they occur in experience, are due to the fact that one movement has by nature another that succeeds it in regular order..."

Whenever, therefore, we are recollecting, we are experiencing certain of the antecedent movements until finally we experience the one after which customarily

comes that which we seek. This explains why we hunt up the series [of movements], having started in thought either from a present intuition or some other, and from something either similar, or contrary to what we seek, or else from that which is contiguous with it. Such is the empirical ground of the process of recollection..."⁷⁰

This brief account of memory and reminiscence brings us to the end of our discussion of the 'lower functions' of thought, i.e. sensing, imagining and remembering. All of these are functions of human thought. Human thought is, in fact, dependent upon these lower functions.

Thinking is a process in which 'the real' enters the mind through sensation, the images represented in the imagination are the separated forms of empirical objects which are capable of being universalized, or known, and memory and recollection are the means by which images are retained. In short, 'thinking' is not just the manipulation of concepts, it is a term which can also be applied to the three (or four, if we wish to draw a sharp distinction between memory and recollection) identifiable functions without which human thought would not be possible. If, as Aristotle says above, the process of thinking involves a kind of movement, then what kind of movement is in question? Aristotle defines movement as: "The fulfillment of what exists potentially, in so far as it exists potentially..."⁷¹ In other words, movement is the process of reduction from potency to act, the actualization of what, prior to the movement, had been only potential. If we apply this notion to the sphere of knowing, then we see that before a thing can be known it must exist, so on one level, knowledge depends upon ontology. But on another level, the knower must precede the act of knowing. We have,

then, two potentialities: an object which has the potential to be known on account of the fact that it exists, and a knower who has the potential to know on account of the fact that he is the kind of thing he is (i.e. a rational animal). Basically, movement requires three antecedent conditions: (a) a mover, (b) a moved, and (c) an instrument of movement, or an agent.⁷² For a movement to be effected from potency to act, the agent must be prior to the movement. Taking our inspiration from Aristotle's biology, we may say that a father, as the agent of his son's generation, had to precede his son in actuality, because for something which only existed potentially i.e. the son prior to his conception, to be made to exist actually, requires that the agent be already an actual being. In short, anything which actually exists could only have been brought to that state through the agency of something actually existing.⁷³

This brief sketch of the Aristotelian theory of generation has certain points in common with the theory of sensation. In the case of the movement of sensation,

"...both the acting and the being acted upon, is to be found in that which is acted upon, both the sound and the hearing so far as it is actual must be found in that which has the faculty of hearing; for it is in the passive factor that the actuality of the active or motive factor is realized; that is why that which causes movement may be at rest....For as the-acting-and-being-acted-upon is to be found in the passive, not in the active factor, so also the actuality of the sensible object and that of the sensitive subject are both realized in the latter."^Y

It is basically along these lines that Aristotle contrasts the unexercised power to see and actual seeing. In the former, the power of sight is in potency towards what is visible, in the latter, when a visible object is brought into contact with an eye capable of seeing it, the actuality of the sense quality

and the potential of the eye to see are simultaneously realized. It is in this context that Aristotle tells us that 'sense' must have two meanings:

"...sense potential and sense actual. Similarly 'to be sentient' means either...to have a certain power or...to manifest a certain activity."⁷⁴

We may say, in general, that any object has the power to be seen, just as the eye has the power to see any object. But since the purpose of sensation is to gather the 'raw materials' from which images are drawn, there must be some part of the ψυχή which is able to receive whatever form is 'impressed' upon it, something similar to the notion of 'prime matter' in that, having no form of its own, it is able to receive any form.⁷⁵

As Aristotle says:

"If thinking is like perceiving, it must be either a process in which the soul is acted upon by what is capable of being thought, or a process different from but analogous to that. The thinking part of the soul must therefore be, while impassible [i.e. impassive (ἀπαθές)], capable of receiving the form of an object; that is, must be potentially identical in character with its object without being the object. Mind must be related to what is thinkable as sense is to what is sensible (ὥσπερ τὸ αἰσθητικὸν πρὸς τὰ αἰσθητά, οὕτω τὸν νοῦν πρὸς τὰ νοητά)."⁷⁶

There are, according to Aristotle, two distinct elements in the ψυχή. One is compared to a matter which is capable of 'becoming' anything because it is capable of receiving the form of anything - the so-called passive mind; and the other is compared to a cause, or agent, which is productive of intelligibility - the so-called active mind.⁷⁷

"And in fact mind as we have described it is what it is by virtue of becoming all things, while there is another which is

what it is by virtue of making all things: this is a sort of positive state like light; for in a sense light makes potential colours into actual colours.

Mind in this sense of it is separable, impassible, unmixed, since it is in its essential nature activity (for always the active is superior to the passive factor, the originating force to the matter which it forms).⁷⁸

The process of conceptualization involves an inductive progression from particulars to universals. The process involves the exercise of two distinct faculties: sensation, which is directed towards particulars in the external world, and 'knowledge' which apprehends the universal once it has been established.

"...the objects that excite the sensory powers to activity, the seen, the heard, &c., are outside. The actual ground of this difference is that what actual sensation apprehends is individuals, while what knowledge apprehends is universals, and these are in a sense within the soul. That is why a man can exercise his knowledge when he wishes, but his sensation does not depend upon himself - a sensible object must be there."⁷⁹

The three identifiable functions in the process of the separation of the ~~form~~ from the matter of the object in the external world are the proper operations of the 'lower powers' of the $\psi\upsilon\chi\eta$. Human thought involves, at its lower end, the reception, representation and recollection of sense-impressions. Sensation is directed towards particulars as its objects, whereas the object of knowledge is not the sensible and particular in the external world, but rather the universal in the $\psi\upsilon\chi\eta$. The act of knowing essentially involves the apprehension of the universal which is not a thing and which cannot be grasped through sensation although sensation is a necessary condition for the acquisition of the universal.

We have already seen in the text of the Posterior Analytics quoted earlier⁸⁰ that universals are not perceived in the act of sensation. In other words, the 'what' of the objects of sense are not directly revealed through sensation. But, as a result of exposure to a certain number of particulars of a given kind, there arises a concept (the universal) which is a systematization of the particular images and, included in the comprehension of the universal are all of those features which all of the particulars have in common. The universal is commensurable with its particulars because it is specifically identical with each one of them. As Aristotle says:

"...out of sense perception comes to be what we call memory, and out of frequently repeated memories of the same thing develops experience; for a number of memories constitute a single experience."⁸¹

In this same chapter, Aristotle calls the universal, (which we may suspect is the single experience referred to above), a "...one beside the many which is a single identity within them all..."⁸² and says that the universal is "...now stabilized in its entirety within the soul..."⁸³ It should be noted, however, that there is a text which reads: "...though the act of sense perception is of the particular, its content is universal - is man, for example, not the man Callias."⁸⁴ Viewed in the light of Posterior Analytics, I, 31, 87b28-35, this text seems recalcitrant in that it does not appear to subscribe to Aristotle's earlier assertion that universals are not grasped in sense perception.

To clarify this problem, we should recall the notion that a universal can be predicated of many subjects. The universal is not something that is 'in' particulars, but rather it is a 'single experience' which arises from repeated exposure to particulars and is contained in the ψυχή. I believe that what

Aristotle is referring to in Posterior Analytics, II, 19, 100a 17-b1 is the intelligible content of the perception and not the sensible content. The sensible content of the sense perception is 'Callias', the intelligible content is 'man'. To know that this particular object 'Callias' is a man, one has to be able to predicate 'man' of Callias. But to do this, one must already have acquired the universal in the way I have outlined, otherwise we would be obliged to maintain that, for the universal to manifest itself in sense perception, it is somehow 'in' the particular, and as we have seen in Chapter III, no universal is a substance or is 'in' a substance. This notion is in line with what Aristotle says in the De Interpretatione to the effect that:

"Some things are universal, others individual. By the term 'universal' I mean what is of such a nature as to be predicated of many subjects, by 'individual' that which is not thus predicated. Thus 'man' is a universal, 'Callias' an individual,"⁸⁵

Before leaving this discussion of the process of coming to know the universal, there is a further observation to make and it is one that touches the nature of 'scientific knowledge'.

"...every science is thought to be capable of being taught, and its object of being learned. And all teaching starts from what is already known, as we maintain in the Analytics [i.e. Post. An., I, 1, 71a1] also; for it proceeds sometimes through induction and sometimes by syllogism. Now induction is the starting point which knowledge even of the universal presupposes, while syllogism proceeds from universals. There are therefore starting-points from which syllogism proceeds, which are not reached by syllogism; it is therefore by induction that they are acquired."⁸⁶

We shall return to the significance of this point for the general theory of categories, i.e. that the syllogism, or logic, proceeds from antecedently acquired universals, later.

Up to now, we have reviewed the means by which the $\psi\upsilon\chi\eta$, operating through the organs of sensation, acquires sense-impressions, the empirical starting-point of the process of conceptualization. We have seen that the sense-impression is represented in the $\psi\upsilon\chi\eta$ as an image, and that images are retained by the faculty of memory. The persistence of images in man's memory is what enables him to systematize his images into universal concepts. Whether the universals 'species' and 'genus' mark the end of the process of conceptualization remains to be seen.

In the interval, we shall turn to a highly important distinction between forms and universals. So far, we have talked about sense-impressions derived through sensation, and we need to be clearer now about what is separated from the external object, and what importance this can have for the theory of categories.

4. The Difference Between Forms and Universals.

Let us begin our attempted clarification of this issue by formulating the problem as Aristotle might have seen it. In the first place, he spent the formative years of his intellectual development in Plato's Academy and thus, willingly or not, he became the heir to a whole tradition involving conceptual frameworks that were, in large measure, uncongenial to his realistic and empirical temperament. In particular, the ante rem theory of universals must have struck him as fantastic. In an important step towards the elaboration of his own philosophy, Aristotle discarded Plato's separated Intelligible Forms, and replaced them with forms that are 'in' physical things. This form has a dual purpose: on the one hand, it is that by

which the thing is constituted as a singular existent object, a 'this' and, on the other hand, it contains a principle by which the object can be known. In every substance, what makes x be a 'this' i.e. a particular, must also be that by which x is defined and therefore that by which x is knowable.

"x is τόδε τι, if it is both (a) singular and so signifiable by 'this' and (b) possessed of a universal nature, the name of which is an answer to the question τί ἐστὶ in the category of οὐσία; in other words x is a πρώτη οὐσία. It is a 'designated somewhat' - a placed and dated specimen of some definable and substantial nature or kind."⁸⁷

Without this dual purpose form, nothing would be what it is, nor would it be intelligible. That things are what they are and are knowable is clear when we reflect on the experience of knowing. Thus, the form has an ontological function in that, along with matter, it is co-constitutive of the object in its extramental reality; the form has also an epistemological function in that it contains a principle of knowability.

What difference, if any, is there between a form and a universal? Just as all cats are animals, but not all animals are cats, all universals are forms, but not all forms are universals. Prior to its separation, the form is 'in' the object of sensation, it is a co-constitutive principle of the object. Because the Aristotelian theory of knowledge is dependent upon the forms separated through sensation, knowledge depends upon the real. In other words, the world precedes knowledge of the world. As Aristotle says:

"...sensation is surely not the sensation of itself, but there is something beyond the sensation, which must be prior to the sensation; for that which moves is prior

in nature to that which is moved, and if they are correlative terms, this is no less the case."⁸⁸

To the extent that the form, prior to separation, is ontologically 'in' the thing, it exists independently outside of the mind. When the form is separated from the object and conveyed to the $\psi\upsilon\chi\acute{\eta}$ through sensation, the separated form is specifically identical to, though numerically different from, the form of the object. When, through the process of coming to know the universal described above, a multiplicity of individual forms in the $\psi\upsilon\chi\acute{\eta}$, represented as the images of particulars,⁸⁹ are synthesized and elevated to the status of a universal concept, the universal is present in the $\psi\upsilon\chi\acute{\eta}$. Thus, the form is first 'in' the thing, then as a particular image in the $\psi\upsilon\chi\acute{\eta}$, and finally, the images in the $\psi\upsilon\chi\acute{\eta}$ give rise to the universal which is never anywhere but in the $\psi\upsilon\chi\acute{\eta}$. While it is true that all universals are forms, forms are not universals in disguise. The 'universal' as 'concept' is contrasted in the $\psi\upsilon\chi\acute{\eta}$ with the 'particular form' as 'image'. The concept is 'constructed' out of a plurality of perceptions, or images. In consequence, the universal, once stabilized in the $\psi\upsilon\chi\acute{\eta}$ does attain a kind of 'isolation', but we would do well to remember that the universal, or concept, as a unity, is more contingent than is commonly realized. In other words, if the particular images did not exist in the $\psi\upsilon\chi\acute{\eta}$, then neither would the universal. The particular images in turn are dependent upon the ontological individuals of which they are the images. This view is in line with the doctrine of the Categories which states that "...if the primary substances did not exist it would be impossible for any of the other things to exist."⁹⁰ By 'the other things', we may understand secondary substances and the nine non-substance categories. The

point is that there is an analogy between the dependence of species and genera on primary substances and the dependence of universals on particular images. Accordingly, to speak of Aristotle's 'in re theory of universals' is dangerous and misleading if it is understood to imply that Aristotle believed that universals have an existence outside of the mind in things. It would be more accurate to say that Aristotle has an in re theory of forms. The not infrequent confusion on this point stems, it seems, from a failure to distinguish properly between forms and universals.

The notion that there is a clear distinction to be made between forms and universals cuts across the earlier Aristotelian distinction in the Categories between primary and secondary substance. Ross says that

"...while primary substance is for him [Aristotle] the most real thing, secondary substance, and in particular the infima species, is the central point of his logic. For logic is the study of thought, and that which the individual contains over and above its specific nature is due to the particular matter in which it is embodied, and thus eludes thought. In so far as they can be known, the members of an infima species are identical, and it is only those properties of them which flow from their specific nature that can be grasped by science."⁹¹

According to Ross, the only aspect of an individual that can be grasped scientifically is its specific nature, or essence, and that this is of the nature of a universal, so that what is known is not the individual qua individual, but the individual qua capable of universalization through the conceptual separation of its essential form. But, recalling Hamelin's phrase that "...c'est sur un individu que roule la métaphysique..."⁹²

we are left to grapple with Tricot's assertion that the individual is neither knowable, nor real.⁹³

If to be real is to be a concrete individual (a τόδε τι), and if Tricot is right in saying that an individual is neither knowable nor real, then what becomes of Hamelin's statement that metaphysics runs on the individual? And the problem becomes even worse when we consider the disjunction that is introduced between the real and the knowable. In other words, if the more concrete and individual something is the less intelligible it becomes, then the converse would appear to be true also, i.e. the more intelligible something is the more it is universal, and the less it is real. At this point, if we are right in assuming that this is how Tricot has read Aristotle, then it becomes difficult to see in what respect there is any real difference between Plato and Aristotle. Given that some such conclusion as this may be just what Tricot is aiming at, we must see if this thesis will bear investigation. In general, Aristotle's metaphysics has, as one of its objects, the study of those particular questions relating to 'being' which do not fall under the purview of the so-called special sciences. Of specific interest is the notion of 'being qua being'. In Chapter III, we outlined the special relationship between the notion of 'being' and substance⁹⁴ so it would serve no useful purpose to repeat that discussion here. The fundamental point is that substance is the highest manifestation of 'being',⁹⁵ and therefore metaphysics, in its study of 'being', cannot ignore the problem of substance as known. What is at stake is that if Tricot is right, then the view that a purpose of Aristotle's metaphysics is the scientific study of 'being', particularly as 'being' manifests itself in concrete individual substances, is wrong. And more than this, that

the content of Aristotelian metaphysics is thereby rendered if not meaningless, then certainly more problematic than is commonly realized.

Now, I, for one, take Aristotle seriously when he ascribes ontological primacy to the concrete individual substance:

"...that which is called a substance most strictly, primarily, and most of all - is that which is neither said of a subject nor in a subject, e.g. the individual man or the individual horse."⁹⁶

If we make a preliminary pass at this problem by asking the question: Which is the more excellent reality, the thing (as a concrete particular 'this'), or the universal?, then there is no doubt as to what Plato would answer. For him, the universal (Intelligible Form) is by far the more excellent of the two. This, then, cannot also be Aristotle's position, that is if we assume that Aristotle is not a Platonist. The alternative is to argue that for Aristotle, the thing is the more excellent reality. The whole point of Aristotle's criticism of the Intelligible Forms is that they lack explanatory power on the metaphysical and epistemological levels. On the metaphysical level, to argue that things exist and are what they are on account of their 'participation' in the 'Forms' is not very satisfying. In his account of this notion in the Metaphysics,⁹⁷ Aristotle appears to have no idea as to what the notion of 'participation' means, and he politely implies that the Platonists haven't either, he says that "...what the participation or the imitation of the Forms could be they left and open question."⁹⁸ Thus, it is difficult to understand the metaphysical relationship between the Intelligible Forms and physical objects.

But if the metaphysical problem raised by the theory of

Forms is bad, the epistemological problem is even worse. We have already seen that, for Aristotle, knowledge is of universals. This is not far removed from Plato's view, but the radical distinction is that Plato's universals are separate from the things they are the universals of, and the only way of establishing a connection between them is through the theory of reminiscence. Thus for Plato, there are two worlds: one physical, composed of fleeting objects being generated and corrupted of which no stable knowledge is possible; and one intelligible, populated by stable, eternal, and supremely intelligible Forms. The two worlds are tenuously connected metaphysically through the doctrine of participation, and epistemologically through the doctrine of reminiscence. Aristotle, on the contrary, had only one world which was both real and intelligible, so that the ground of intelligibility cannot be other than the ground of the real and, for Aristotle, this common ground is the form.

The hylomorphic theory states that the thing (the physical object) is a compound of both matter and form,⁹⁹ so that the form, as it exists in the thing, has an ontological function in that with matter, it is co-constitutive of the 'being' of the thing. From Chapter III we recall that Aristotle had concluded that substance (οὐσία) in its highest sense is the form, or essence (τὸ τί ἦν εἶναι) which is a refinement of the earlier view that οὐσία is a 'this' (τόδε τι). Clearly, τόδε τι and τὸ τί ἦν εἶναι are not identical because the τόδε τι also contains matter which the essence qua essence does not. This circumstance has led to the common conclusion that the essence, as universal, is knowable, while the 'this', as particular, is not. The problem, then, is to explain how metaphysics can deal with the 'most real' individual and still be

called knowledge. As was noted earlier, a thing must be before it can be known, further, nothing can be without being something. What makes it be something is its essence. So to be a 'this', a thing has to have an essence. The essence and the thing of which it is the essence are thus involved in a mutually beneficial relationship. On the one hand, the matter of the 'this' is what particularizes the essence and gives it an ontological status it would not otherwise have, (Aristotle's forms are 'in' things and not separate from them); on the other hand, the essence provides the 'this' with its 'whatness' - it is the 'something' without which the 'this' would not be anything.

Drawing from the doctrine of predication and inherence, the 'this' as a concrete particular individual cannot be predicated of anything, but the essence can be predicated of it. In fact, not only the name of the essence, but also its definition, is predicable of the 'this'. In the case of Socrates, he is called a man because his essence is 'man', and the name and the definition of the essence are predicable of Socrates, and not just of Socrates, but of every other member of the species 'man'. In terms of the form (essence), the form of each human being is identical with the form of every other one, a fact which continues to hold even at the level of infimae species. What makes a man be male is precisely the same principle that accounts for the 'maleness' of every other male, and similarly for females. If we remained strictly at the level of form-in infimae species, no male or female would, or could, be distinguished from any other. As particulars, they would be logically indiscriminable. But all humans come equipped with other things besides their forms, and this is the network of inherents, the accidents which are grouped according to the nine non-substance categories. It is not required,

either universally or necessarily, that a person have these particular inhereents and not others, but it is necessary that he have some. For example, in general, it is a matter of complete indifference that some particular object have this colour, but it is necessary that it have colour. And at this point, an interesting development occurs. According to the theory of predication and inherence, something is truly said of another if it is the genus or species of that of which it is predicated. Colour is like knowledge in that it is one of the few genera which can be said to inhere. (I say 'genera' on the assumption that red, green, blue, and so on, are 'species' of the 'genus' colour, and that the same analogy holds for knowledge and its branches). Colour, then, is 'in' Socrates, but is not predicable of him, because colour is not what Socrates is. However, colour, although inhering in Socrates is, at the same time, predicable of the brown in his hair, the white in his skin, and the blue in his eyes. In Aristotle's example, "...knowledge is in a subject, the soul, and is also said of a subject, knowledge-of-grammar."¹⁰⁰ With respect to 'man' however, the form (essence) is only 'predicable', it is not 'in'. The conclusion to which the doctrine of the Categories impels us is that if the form is only predicable and never inherent, then it must be a secondary substance, i.e. it must be the species or genus of the thing of which it is predicated. In the case of 'man', the definition of the species arises from the combination of the genus 'animal' and the specific difference 'rational', thus the definition of the species 'man' is 'rational animal'. This is the nature that all men have in common, but all men nevertheless remain individuals. What makes them be individuals is the form particularized by matter, but let it be remembered that we are talking about knowing that this

individual belongs to the species 'man', and unless a connection can be established by the $\psi\upsilon\chi\eta$ between the individual and its species, then no knowledge of it will be possible beyond the crude statement that whatever it is, it exists. The human race would not have come as far as it has if the most we could do was to wander around, pointing at things, and saying: "It exists."

In the case of man (the species), each individual member of the species possesses his own form which, although logically indiscriminable from the form of any other man, is nevertheless individuated by his own particular matter. Now, although it has been said that Aristotle's forms are 'in' things, the form of the individual man is not 'in' him in the same way that his accidents are 'in' him. In other words, the accidents inhere in a particular man's substance, whereas the form is, along with matter, co-constitutive of a man's substance. It is a man's matter which constitutes him as a particular individual, and it is his form which constitutes him as a recognizable member of a clearly defined species. To arrive at the universal conception of the species 'man', we separate the form of every man we have met in our experience. The $\psi\upsilon\chi\eta$ operates on these forms and produces a concept, the content of which is more general than the content of a particular image, since the image of this particular man is singular and determinate and refers only to what it is the image of. The general notion of species, however, does not refer to one individual only, but is predicable of all members of that species. The concept of the species 'man' includes in its comprehension all of those essential features which all men have in common. It is important to bear in mind that the general notion, the 'concept', is not something that we encounter in the external world, it is only

a mental construct. It does, however, have an extra-mental correspondent in the particular form because it is the particular form, and others like it, which provides the 'material' out of which the universal is 'made'. The generalized notion is commensurately universal because it is specifically identical with, though numerically different from, the particular forms included in its extension.

"The universal, upon which scientific knowledge is based, is...for Aristotle something that is identical with each of the singulars in turn. That is why it can be predicated of each of them. That is why you may say, for instance, that Socrates is a man, and Callias is a man, and Coriscus is a man, and every other human individual is a man. Each of these is severally a "man," and "man," while a unitary whole, is each of them in turn. Each of the singular things instantiates one and the same universal. In each instantiation there is, each time, but one real object, able to be regarded in two different ways. In one way it is regarded as singular, in another way it is regarded as universal."¹⁰¹

To the extent that the form and the universal are specifically identical, they share a 'common nature', and while it is true, as Owens notes, that the doctrine of common natures was primarily a mediaeval concern following Ibn Sînâ, it is not unlikely that the notion was latent in Aristotle.¹⁰² As Owens says:

"The same object, according to the Stagite, is known in two different ways. In so far as it is known actually, it is individual. In so far as it gives knowledge that can be applied to other individuals, it causes the indefinite and potential way of knowing that is called the universal. It is the same nature

that is found in both ways, namely as individual and as universal; and so is common to both....The acceptance of the common nature need not mean setting up a twilight zone between thought and reality, between the subject of logic and the subject of metaphysics. Rather it means that the same common nature has a twofold being, being in reality and being in the human mind. As it exists in the real world, it is found only in individuals, and exhibits the characteristics that allow it to be treated of by the physical sciences and by metaphysics. As it exists in the mind it presents in its intelligible aspects the specific and generic grades, the higher grades predicable of the lower, and all predicable of the individual substance. In this way it offers a subject for logical treatment like that found in the Prior and Posterior Analytics.¹⁰³

Should it be objected that it is anachronistic to attempt to read into Aristotle what was essentially a mediaeval development, it ought to be remembered that much of mediaeval philosophy was concerned with problems of existence, whereas Aristotle was more concerned with the problem of knowledge. If we keep these two considerations separate, we will minimize the risk of distorting the doctrine of common natures as it may be said to apply to Aristotle's epistemology.

"The mediaevals faced the issue in an existential framework. The same nature had a twofold existence, in reality and in the mind, and so of itself neither existence belonged to it. Accordingly neither singularity, which conditioned its existence in reality, nor universality, which conditioned its existence in intellection, pertained to it in itself. Of itself it was neither individual nor universal, but took

on these conditions only in the one or the other existence. This existential framework cannot historically be read back into Aristotle. The Stagirite's explanation is given wholly in terms of actuality and potentiality within a formal (as contrasted with existential) order - the one Aristotelian term eidos serves for the object of both the potential knowledge given by the "species" and the actual knowledge by way of "form." Of itself the Aristotelian form is actual. It is multiplied by matter and thereby assumes singularity; it is able to give universal knowledge of the other singulars in which it may be found, and so is potentially universal. The conclusion that of itself it is neither singular nor universal is not drawn in Aristotle."¹⁰⁴

Indeed,

"It is not at all a question of attributing to the common nature an existence outside the particular and outside the universal, but rather of maintaining that it is the same common nature that has existence either as an individual in reality or as universal in the intellect. In any case there has to be some object that metaphysics and logic touch in common..."¹⁰⁵

This, in my view, is the heart of the matter. What logic and metaphysics touch in common is, effectively, the form. Outside of the mind, the form joins with matter to constitute the physical object in its ontological reality, and in this way, the form is constitutive of the 'thing' which is the object of the physical sciences and metaphysics. But there is also the process of knowing to be considered. In this case, the form of the sensible object is separated from its matter and appears in the ψυχή as a particular image. The particular form, as image, is specifically identical to, though numerically dif-

ferent from, the form of the object. When this form-as-image is synthesized with others of the same kind, what results is the concept or universal. It remains true that nothing can be known scientifically, i.e. universally and necessarily, except through the mediation of the universal concept, and it is also true that the form outside of the mind remains a basis of the reality of the individual. For Aristotle's epistemology to remain both realistic and empirical, he must assert that the act of sensation, in which the form is separated, involves no falsification of either the reality or its intelligible nature. Finally, for the individual to be known through the mediation of the universal, there must be a sense in which the universal is identical with the forms out of which it is 'constructed', and so there is.

As was seen above, the form possessed by individuals at the level of species are logically indiscriminable. They all possess their essential characteristics universally and necessarily; no man can be more or less a man than any other, and in terms of the form of each, no man can be distinguished from another. If we were to confine our analysis simply to essential form, it would, for example, be impossible to tell the difference between Woody Allen and Ronald Reagan, and since differences between them do exist, we must inquire on what level these are to be found. I think that Rodier points in the right direction when he says:

"Il y a des degrés dans la réalité: l'espèce, par exemple, à laquelle il ne manque plus que les caractères accidentels pour être un individu, - l'homme, auquel il ne manque que l'addition de telle, taille ou de telle couleur pour être Callias ou Socrate, - est une partie et peut-être la principale, de la réalité de Callias ou Socrate." 106

According to Rodier, what does make men distinguishable from each other is not their substance (as form), but their accidents. Indeed, any comparative description of Woody Allen and Ronald Reagan would probably begin by completely ignoring the fact that they are both men. To be sure, that is what they both are, but that is not what is going to enable us to distinguish them qua men. The description, then, will have to consider the network of inhereents, the ontological determinations which belong to each as particular men individuated by matter, and not to them as members of the species 'man'. As the comparative description began and progressed, an interesting development would begin to emerge: on the one hand, we would find that the more accidental determinations we could find for each, the more complete the list of differences would become, and, in a manner of speaking, the more real they would become; but on the other hand, we would soon realize that insofar as a description is concerned, the network of inhereents is virtually inexhaustible. From this circumstance, two related facts arise: first, that any coherent account or description of a thing must begin with its species along with a brief sketch of such of its accidents as allow it to be distinguished from another individual of the same species; and, second, that any description of a thing, given to a person to whom the species of the thing is unknown, solely in terms of a list of accidents, would be meaningless no matter how exhaustive it attempted to be.

It will be recalled that in Chapter II we devoted a considerable amount of space to the distinction between substance and accidents. To recapitulate briefly, substance, because it is possessed of a form which is identical for all members of its species, is intelligible. On the strength of our knowledge of the species, we can make certain predictions about

its members even if they, qua individuals, are unknown to us. In short, form is of the nature of the universal and necessary, and because of this, it is accessible to scientific analysis. The same is not true of accidents.

"Accidents are, on the one hand, incapable of science because, occurring neither always nor for the most part, they are not necessarily relevant to any particular thing; and, on the other hand, are not capable of being pointed to as a 'this'. They alone are properly 'present in a subject.'"107

The sad fact about accidents is that their greatest strength is their greatest weakness. Their strength is that they function ontologically in a manner inseparable from the substance in which they inhere, and their purpose is to make the substance (in the case of a man) to be not just 'a man', but this man, distinguished from all others by his height, weight, age, colour, other physical peculiarities and/or deformities. It is not accidental that all men are rational (congenital defects and physical injury notwithstanding), but the specific 'form' that rationality may take in the concrete instance is accidental. For example, one man may be sensitive to music, keenly interested in the manipulation of language, and a competent amateur poet; another man may be fascinated by science and the quantitative aspect of reality and be characterized by a marked mathematical ability. No one would say that one of these men is more rational than another, it is simply that the specific rationality of each manifests itself in a different way. These characteristics and a multitude of others vary from person to person and, although as I said earlier, they serve to make people vividly distinct from each other and consequently more interesting, the weakness in the network of inhere is that they are, as their name implies, 'accidental'. To put the matter another way, any

expectant mother is in a strong position to make certain predictions about her unborn child provided that she restricts herself to an enunciation of essential characteristics which are universal and necessary for all people. For instance, (all things being equal), she would be correct in predicting that her child will belong to the species 'man', and in consequence that he will be a rational, social, and political animal, that he will be capable of abstract thought, that he will be able to manipulate language intelligibly, and so on. What the mother cannot predict are the accidents that will inhere in her child; whether, for example, he will be tall or short, fat or thin, freckled, bald, or hyperactive. The irony is that these very characteristics which serve to 'complete' and differentiate the scientifically knowable infima species are, themselves, scientifically unknowable.

It is commonly thought that since there is no science of accidents, that the mind has no access to them beyond the level of sensory cognition. If we attempt to take our knowledge of accidents beyond what is simply given in sensation, then the stage is set for some interesting speculation. We have already seen that knowledge of particulars in the category of substance, for example, 'this man', is achieved through the mediation of the universal concept 'man' which is predicable essentially of all of the particulars included in its extension. The particular individual man is known because the form which is co-constitutive of his 'being' is specifically identical to, though numerically different from, the form which is separated by the $\psi\upsilon\chi\eta$ and grasped as a particular image which, along with others of the same kind, constitutes the extension of the universal concept. The question is: Can particular accidental determinations of substance themselves give rise to a universal through the mediation of which they could be known? An example would

help to clarify my meaning.

Let us take the case of a person we are meeting for the first time. Through sensation, the $\psi\upsilon\chi\eta$ separates the form and judges that this form contains, in its particularity, all of the essential features which we have antecedently determined to be present in all of the other individuals of the same kind encountered in our experience. This man, then, although particular, has a form with a nature amenable to universalization, and hence, knowable under a universal concept. But what of his accidents, namely his colour, size, weight, and so on? Clearly they cannot be totally unknowable or we would not know them. How, then, could this phenomenon be explained? We must, first of all distinguish what we mean by the term 'knowledge'. Aristotle insists that knowledge is of universals.¹⁰⁸ In general, we tend to think of particulars as concrete physical objects except on those occasions when we are thinking about a particular form which is present in the $\psi\upsilon\chi\eta$ unsubsumed under a universal concept. Particulars and universals are not the same, but the fact remains that no particular can be known except through the mediation of a universal. When Aristotle talks about knowledge, he usually means 'scientific knowledge', i.e. knowledge which considers essential relations and views its objects in the light of universality and necessity. To this type of knowledge, we may oppose 'knowledge by sense'; this type contrasts with 'knowledge by intellect' in that its object is not the form taken universally, but rather the particular ontological determination(s) of a substance.

If scientific knowledge is of universals, then an interesting question naturally arises: Are individuals unknowable because they are not universals? This question leads us back to an earlier problem, viz., that particular substances

are the highest manifestations of 'the real', but knowledge is of the universal and not of the particular. The problem seems to be that that which is most real is, on account of its particularity, least knowable. And the central concern of this section is to try to determine in what sense the world, composed of a multitude of particular substances, can be said to be both real and knowable. Rodier makes several interesting moves towards a clarification of this problem:

"Si la réalité substantielle est toujours, d'après Aristote, le plus particulier, comment, a-t-on demandé, peut-il soutenir qu'il n'y a de science que du général? Faudrait-il donc renoncer à croire que la science ait l'οὐσία pour objet? Remarquons tout d'abord que la formule: il n'y a de science que du général n'a pas pour Aristote, comme elle pouvait l'avoir aux yeux de Socrate, sinon de Platon, la valeur d'un principe. Le véritable objet de la science, d'après lui, c'est non pas le général, mais le nécessaire, et s'il est, en même temps, général, c'est que la nécessité implique la généralité. L'universel, dans la science, n'a de valeur que parce qu'il sert à révéler un lien nécessaire de causalité....Mais, dirait-on, substituer la nécessité à la généralité dans la définition de la science, ce n'est point résoudre le problème. Il reparaitra immédiatement sous cette forme: la réalité, l'οὐσία la plus complète, est individuelle: or il n'y a pas de science de l'individu."109

He continues,

"...il faut se rappeler pourquoi il n'y a pas science de l'individu. Ce n'est pas parce qu'il est individuel; c'est parce qu'il y a en lui de la contingence. S'il se trouvait des choses individuelles desquelles toute contingence fût exclue, elles

seraient objets de science. En fait, il y en a: ce sont les astres; de même aussi, l'οὐσία suprême, qui est peut-être la seule individualité absolue, et en qui la contingence n'a aucune place. Mais il n'en est pas de même pour les choses sensibles, pour celles du moins qui constituent le monde sublunaire. Ici, il n'y a pas de science de l'individu, parce que les caractères qui, dans l'individu sensible, viennent s'ajouter à la forme spécifique sont tous fortuits et accidentels; en sorte que le dernier sujet qui puisse y être scientifiquement connu, c'est l'espèce, dernière chose où la nécessité se manifeste. Il reste vrai qu'à mesure que la science devient plus générale et plus abstraite, elle a pour objet des substances de moins en moins substantielles, de plus en plus pauvres et qu'en même temps, d'après Aristote, elle devient de plus en plus exacte. Mais cela tient, non plus aux choses en elles-mêmes, mais à notre façon de les connaître. Si, à mesure que son objet devient plus simple et plus général, notre science devient plus exacte, il ne s'ensuit pas que cet objet gagne en valeur ontologique, tout au contraire. Les mathématiques, par exemple, portent sur des réalités appauvries et partielles. Seules l'astronomie et la théologie atteignent des choses à la fois individuelles et nécessaires."110

What Rodier points out with admirable clarity is that what makes substantial particulars scientifically unknowable is not the fact that they are individual, but the fact that they are tied to matter, therefore contingent, therefore not necessary. We shall return to this notion shortly, but for the moment, let us continue with our example.

We have determined that the object before us is a man, but a man established in his concrete particularity by a network of invariants belonging to his matter. These accidents

can be classified according to the doctrine given in the Cate-
gories, but in fact, everything about him can be subsumed un-
 der the categories. For example, his body (organized by its
 form) belongs to the first category - Substance. If we work
 down the list of the non-substance categories, the following
 considerations may emerge: under Quantity, we may say that he
 is numerically one; under Quality, one of the richest catego-
 ries, he may be white, freckled, bald, thin, and so forth;
 under Relation, he may be twice as big as x, but only half as
 big as y, he is a son, but he may also be a brother, a husband,
 a father, a cousin, and so on; further, the substance which
 he is is also occupying a certain Place at a certain Time.
 The category of Position usually refers to the disposition of
 the parts of the substance, thus he may be standing, sitting,
 reclining, and so on, also, Position may refer to more than
 the examples just given. In the case of battlefield manoeuvres,
 we say that the contending armies have taken certain positions
 which implies more than that the individuals comprising these
 armies are standing or sitting. In the category of State, or
 'Having', we may use the obvious examples that the man is clo-
 thed, armed, or shod, or we may also say that he is in a state
 of readiness, despair, confusion, and so forth, the important
 principles of actuality and potentiality also belong to this
 category. In the category of Action, we may describe what he
 is doing; and under Passion, we may describe what is being done
to him. These then, are hypothetical examples of the descrip-
 tion of a substance under the modes of 'being' described by the
 categories.

It is, of course, totally unnecessary that the man have
any of the determinations enumerated above, including those
 falling under the headings of Substance and Relation. In other
 words, he does not have to be this man, provided that he is a

man; and he does not have to be these people's son, provided that he is somebody's. What is indisputable is that any particular substance does not have to have these accidental determinations provided that it has some accidental determinations. The body does not have to be white, brown, or black, provided that it has colour: Up to this point, we have been arguing that scientific knowledge is of the universal and necessary. Substances are particularly amenable to this type of knowledge because the links to their species and genera are universal and necessary for all individual members of those species and genera, and scientific knowledge is precisely the knowledge of those necessary connections. By contrast, we also see that knowledge of accidents is not possible scientifically, not because it is not universal, but because it is not necessary. Given this consideration, it would be pointless to attempt to demonstrate that knowledge of accidents can be necessary, but does this also rule out the possibility that knowledge of accidents can be universal?

In what way could we say that knowledge of accidents can be universal? Let us take colour as an example. In the case of the man discussed above, we shall assume that his colour is white. At once, several clarifications need to be recalled from Chapter II. In the first place, although his colour is white, it does not have to be, he could easily have some other colour. But, his particular colour is his own, it is not capable of existence apart from him, and as his colour, it is not reproducible in any other substance. But, then again, we commonly make the assertion that x's colour is the same as y's. This judgment does not imply that x's colour qua x's has been reproduced in y. What the statement means, rather, is that if we were to think of white as a genus, and the various shadings

of white as its species, then we could say that the white in x is of the same species as the white in y.¹¹¹ The general practice, though, is to conceive of colour per se as the genus, and the primary colours (red, blue, green, etc.) as the species. This small point need not detain us. What is important is that colour per se, or 'universal colour' can be called universal because it is predicable of every particular colour. Colour belongs to the class of things described in the Categories as both said of a subject and in a subject,¹¹² i.e. it is in a subject, the body, and it is said of items lower down in its own categorial tree, namely of all of those particular colours to be found in the body. If particular colours were not capable of universalization, then colour per se would not be a universal. And unless colour per se is a universal, then it cannot be predicated of particular colours. When Aristotle says that "...per accidens sight sees universal colour, because this individual colour which it sees is colour...",¹¹³ I do not think it probable that what he means is that per accidens sight sees a universal, but rather that any particular colour grasped in sensation is judged to belong to 'colour'.

It is interesting to note that the genus-species-infima species relationship is operative at the level of substance, but it may also in a certain sense be said to be operative on the level of certain kinds of accidents. In the case of colour, we may argue that the genus is 'colour', a species of that genus is 'brown', and that this particular shade of brown, as found in this substance, is an infima species of the species 'brown'. When we recall that any species is predicable of its members, we may assert that a man would not be what he is were he not a member of the species 'man', and a colour would not be what it is were it not 'colour'. The importance of the species-member relationship is that it permits the predication,

not only of the name, but also of the definition, of any member of the species. The genus and species, as ontologically distributed in their members, permit the vehiculation of the essence which is what makes the member of the infima species be what it is. Now, there is no question that this relationship applies most strictly and primarily to living organic substances, but by analogy, it can also be read into the configuration of certain accidents. In other words, the genus 'animal' is predicable of the species 'man', which in turn is predicable of the individual man. By analogy, the genus 'colour' is predicable of the species 'brown', which in turn is predicable of the individual shade of brown. Considered absolutely, this relationship is universal and necessary, but the aspect of necessity breaks down immediately when it stops being considered by the mind in conceptually absolute terms and is 'transferred' to the real order. In physical substances, the genus 'colour' is not a universal and necessary predicable, it is only an inherent. Though, while 'colour', as genus, is always 'in' the body, the particular species and infimae species which it exhibits in the body may, and do, change. A sunburn can turn white skin red, and then brown. Thus, the species and infimae species of the genus 'colour' are totally at the mercy of the substance, because they belong to the matter of the substance, and matter is changeable and corruptible. To be sure, there will always be a genus-species-infima species relationship among the colours in the body, hence the universality, but because the particular colours that may be 'in' the body at any given time are constantly subject to change, the necessity of the relationships in the concrete is lost.

In the final analysis, we conclude that accidents are knowable because they are capable of universalization, this is the aspect that they have in common with scientific knowledge. What

prevents them from sharing in the full nature of scientific knowledge is not that they are particular, or individual, but that they are accidental in the sense of not necessary. The Prime Mover and the astral intelligences are knowable scientifically, though they are individuals, precisely because there is no contingency in them. Where there is contingency, there is no necessity. Thus, it is somewhat misleading to assert that sub-lunar individuals, whether substantial or non-substantial, are unknowable, they are simply unknowable scientifically under the aspect of necessity.

To recall a distinction made in Chapter III, we may say that it is οὐσία as τόδε τι in which the non-substance categories inhere; but what makes the τόδε τι be what it is is its essence (τὸ τί ἦν εἶναι) which is transmitted to the τόδε τι by its species, and the non-substance categories do not inhere in substance taken as essence. Substance as τόδε τι is the basis of the metaphysical reality of the thing, and substance as τὸ τί ἦν εἶναι is only a basis for the metaphysical reality of the τόδε τι, the other being matter. The τὸ τί ἦν εἶναι must be a genuine metaphysical principle otherwise it could not enter into the constitution of the real thing, but it must also, as part of its nature, contain something that is separable and universalizable, otherwise it would not be able to serve as the basis of the intelligibility of the real. Thus, the difference between forms and universals (i.e. on the epistemological level) is the difference between particular images and universal concepts; and, on a metaphysical level, the difference between a particular thing and its species. The species-member relationship is extremely important to the process of concept formation, particularly in the case of the knowledge of substance. But, we have a particular interest in trying to see if the same type of species-member relationship is operative at the level of

accidents.

As stated earlier, the purpose of this chapter is to consider the notion of categories not just as metaphysical principles, or logical classifications, but as the 'highest universals of a pluralist system.'¹¹⁴ In Chapter III, we took a long look at the most important category, substance, and we found that the term οὐσία has a number of different meanings and applications depending upon the context in which it is used. In the present chapter, we have seen that the form, e.g. of a man, or his essence, (which is what Aristotle declares in the Metaphysics to be substance in the highest sense),¹¹⁵ possesses a nature which is capable of being universalized. The result of this process is the notion of the species (εἶδος) 'man' which belongs to the γένος 'animal'. This particular conceptual framework is of great value in our comprehension of the notion of substance, and we shall now consider whether the same means might be employed with reference to non-substance categories. If we proceed along these lines, we must repeat that of all of the categories, substance alone exists independently,¹¹⁶ while the nine others depend for their existence upon substance. When an item in a non-substance category is identified, we know what it is, but it is also virtually unavoidable that we also identify the substance in which the non-substantial particular inheres.

In general, the process whereby individual substances give rise to the universal notion, which is in turn predicable of each, follows the path I have outlined above. The question is: How do individual non-substances give rise to universal notions? We may take the classic example of colour as an illustration. All things being equal, anyone not blind from birth has an understanding of the notion of 'blue'. This is a colour which

occurs frequently in nature, e.g. 'in' the sky, 'in' water, 'in' cornflowers, and so forth. We see immediately that not all blues are created equal, in other words, blue itself may be said to have its own 'spectrum' varying from the very palest shades to a dark 'navy blue' so intense as to be, under certain conditions, almost indistinguishable from black. What is interesting about this spectrum is that every conceivable shade is perfectly entitled to be called blue. Now what all of this has to do with substance is the following, which I shall cast in the form of an analogy: Every individual man belongs to the species 'man' which belongs to the genus 'animal' just as every individual shade of blue belongs to the species 'blue' which belongs to the genus 'colour'. The analogy turns on our acceptance of the supposition that there is a similarity between two modes of essential predication. In other words that the genus in both cases is predicable essentially of the species, which in turn, is predicable essentially of its particulars. (For 'predicable essentially', read 'distributed ontologically'.) The terminus of this process of predication is the individual which, as either particular substance or non-substance, cannot be predicated of anything else. What is strikingly different about substances and non-substances is that, as noted above, substances have an independent existence whereas non-substances do not, and also that individual substances are neither 'said of', nor 'present in' anything.¹¹⁷ We say of substances that their genera are predicable essentially of them, and the same is true of the genera of non-substances, but the genera of substances are not 'in' substances, whereas (the genera of non-substances are 'in' substances. According to Aristotle's four-fold division of entities in Categories, 2, the third division concerns entities which are so

radically unlike substances that they are both 'present in' a subject and 'said of' a subject. For example, we have called colour a genus, and we find Aristotle saying that "...all colour is in a body..."¹¹⁸ Thus, colour is 'in' a body, but it is also 'said of' items lower down in its own categorial tree. For instance, colour is predicable of all the particular shades of all the different colours that may be found in a body.

Beginning with some particular shade of blue, an infima species of the species 'blue', the activity of sensation separates the 'form' of the particular shade of blue which becomes an image in the $\psi\upsilon\chi\eta$, and the process continues until a number of such instances of various shades of blue have been acquired. When this level is reached, the $\psi\upsilon\chi\eta$ grasps the fact that there is something which all of these particulars have in common, i.e. that they are all blue. We have then a notion of blue as 'species' which is distributed among all particular shades of blue as among its members. This particular process of concept formation is also applicable to any other colour. Out of the notion of a particular colour, the $\psi\upsilon\chi\eta$ advances to a concept of even greater generality, i.e. the notion of colour per se, the 'genus' of which all the primary colours are 'species'. It is to be noted that in most instances of genera, a genus (e.g. 'animal') can be resolved into its species through the addition of the specific difference,¹¹⁹ thus the genus 'animal' plus the specific difference 'rational' yields the species 'man'. The concept of 'genus' in this instance is a universal that is divisible. And in this connection, a passage in the Posterior Analytics assumes a new importance. Speaking of how the process of sense perception gives rise to universals through induction, Aristotle says:

"When one of a number of logically indiscriminable particulars has made a stand, the earliest universal is present in the soul: for though the act of sense-perception is of the particular, its content is universal - is man, for example, not the man Callias. A fresh stand is made among these rudimentary universals, and the process does not cease until the indivisible concepts, the true universals, are established: e.g. such and such a species of animal is a step towards the genus animal, which by the same process is a step towards a further generalization."¹²⁰

By the phrases 'logically indiscriminable particulars', and 'rudimentary universals', Aristotle is, I believe, referring to the forms of particular objects which are separated during the act of sensation. The particular forms are represented in the ψυχὴ as images. In acting upon these particular images, the ψυχὴ discerns the universal nature of each (the species), which in turn leads to a concept of even greater generality (the genus). However, Aristotle indicates that the process does not cease after the establishment of the genus, indeed he says that by the same process, the genus is a step towards a further generalization. What might this further generalization be? It would seem that the answer has already been given a few lines above where Aristotle speaks of 'the indivisible genera, the true universals'. With this phrase, he appears to be passing from divisible genera to indivisible genera. And if we ask what these indivisible genera are, it would seem that they are the categories. Commenting on the significance of the phrase "... ἕως αὐτὰ ἀμερῇ στή καὶ τὰ καθόλου...",¹²¹ Ross says:

"The reading of τὰ ἀμερῇ is described as the culmination of the process, so that τὰ ἀμερῇ cannot mean universals in gene-

ral, but only the widest universals, the categories, which alone cannot be resolved into the elements of genus and differentia; and τὰ καθόλου must be used as synonymous with τὰ ἀμερῇ, i.e. as standing for the universals par excellence, the most universal universals."¹²²

To suggest not only that substances are capable of being known universally through the mediation of the 'concepts of species and genera, but also that the accidents of substance are similarly accessible, is to suggest that the process of concept formation ends with the most universal universals - the categories. In the case of the non-substantial particular colour, we have traced its journey all the way to the genus 'colour', and from there, it is subsumed under the indivisible genus, or category, of Quality. Once this link has been established, it is no difficult matter to determine empirically what other kinds of 'things' belong to Quality, e.g. sizes, shapes, textures, and so forth.¹²³

The category of Substance takes its place at the head of the list because it alone of all the categories is capable of independent existence. All of the other accidental categories depend ultimately upon substance for their existence. "So if the primary substances did not exist it would be impossible for any of the other things to exist."¹²⁴ The pregnant phrase 'any of the other things' may be taken to refer not only to the species and genera of primary substances, but to all of the accidents of substance as well as their own species and genera.

There can be no question but that the notion of primary substance (τόδε τι) is what Aristotle understands by οὐσία in the context of the Categories. But what, then, are we to say about his assertion in the Metaphysics that substance in the

highest sense is the form, or essence (τὸ τί ἦν εἶναι)? This is one of the areas in which Aristotle's reaction against Plato is clearly visible. For Aristotle, the question: Which is the highest reality, the thing or its essence? simply makes no sense. For a Platonist, who has no difficulty in conceiving of essences apart from particular substances, it is perfectly obvious which is the more excellent reality. But, the whole problem depends upon the assumption that essences, and the particular things of which they are the essences, are separable. And on this point, Aristotle puts his foot down and declares that any attempt at separation is absurd,¹²⁵ and goes on to state that "...each primary and self-subsistent thing is one and the same as its essence."¹²⁶ Admittedly, there are good reasons for the identification of τὸδε τι and τὸ τί ἦν εἶναι given that for a thing (τὸδε τι) to be, it has to be something, and what it is that makes it be something is its essence. Thus, the essence is not just a universal in the ψυχὴ, something which is of interest to epistemologists and logicians, but as a form, particularized by matter, it enters into the composition of the primary substance and makes it to be what it is. And although the essence and the thing are identical, the essence is also formally separable in thought and gives rise to the way of knowing that we call the universal. As Aristotle says:

"Each thing itself, then, and its essence are one and the same in no merely accidental way...and because to know each thing...is just to know its essence..."¹²⁷

This knowledge of essences holds not only for particular substances, but for non-substances as well, which is what permits the extraction of the notion of universals with respect to accidents, they being the means through which accidents are known, and which ultimately give rise to the summa genera of accidents, i.e. the nine non-substance categories. Aristotle does, how-

ever, inject a note of caution into his account of the identification of accidental qualities with their essences. He says parenthetically:

"But of an accidental term, e.g. 'the musical' or 'the white', since it has two meanings, it is not true to say that it itself is identical with its essence; for both that to which the accidental quality belongs, and the accidental quality, are white, so that in a sense the accident and its essence are the same, and in a sense they are not; for the essence of white is not the same as the man /who is white/ or the white man, but it is the same as the attribute white."¹²⁸

In the final analysis, it may be argued that there is no discontinuity between the doctrines of the Categories and the Metaphysics. There would be a problem, however, if it were true that the treatise on categories were primarily concerned with logic, but as I have already suggested elsewhere,¹²⁹ it is very unlikely that Aristotle considered the Categories to be a logical work. To take the alternative view, i.e. that the Categories is primarily ontological, is far more satisfying since the metaphysical content of the Categories can be seen to be in general agreement with the Metaphysics. In other words, the dominant conception of οὐσία in the Categories is the τὸ ἐν τῷ, the individual particular substance, and the dominant conception of οὐσία in Book Z of the Metaphysics is the τὸ τί ἦν εἶναι, the form, or essence. Any possible attempt to separate these two notions in the real order is preempted by Aristotle who argues that they are identical. It should also be added that the essence which is identified with the 'this' is not, in itself, a universal, because "...no universal attribute is a substance..."¹³⁰ The universal, properly so called, is a

'psychic'/'mental' construct, a concept which, when employed logically, can be predicated essentially of more than one particular. A universal, then, has no existence outside the $\psi\upsilon\chi\eta$ so that it is misleading to speak of universals which are 'in' things as constitutive of their 'being'. The principle that does perform this task is the essence, or form, but not qua universal, rather as a form particularized by matter. The form, however particularized by matter, does retain its nature, and its nature is capable of universalization so that the form, which is separated by the $\psi\upsilon\chi\eta$ in the act of sensation and represented in the $\psi\upsilon\chi\eta$ as a particular image, is rightly said to be constitutive, along with other images of the same kind, of the universal which is specifically identical with, though numerically different from, the form which is a co-principle of the object in the world. And here, we return once again to the point that there is a crucial difference between forms and universals, viz., that all universals are forms, but not all forms are universals.

5. The Commensurability of Logic and Ontology Through the Epistemological Function of the Categories.

Man is defined as an animal capable of acquiring knowledge.¹³¹ It is man's nature, as a rational animal, to be a being capable of receiving knowledge, thus knowledge does not arise in us by chance. But we have also discussed at length the fact that knowledge is not immediate, on the contrary, before the knowable can become actually known, an intervening series of mediations must take place. As a first step towards knowledge, the $\psi\upsilon\chi\eta$, through the act of sensation, separates the form of the knowable object and represents it as an image. The faculties of memory and recollection allow the images to persist in the $\psi\upsilon\chi\eta$ where they are operated upon. The $\psi\upsilon\chi\eta$, in

considering a multiplicity of images, discerns what all of a certain kind of particulars have in common and proceeds through an ascending series of generalizations to the notions of species and genera. These concepts are universal in that they can be predicated essentially, i.e. universally and necessarily, of all of the particulars included in their comprehension. Knowledge is of universals,¹³² but we say we know each thing when we know its essence,¹³³ and this point requires clarification. In the first place, Aristotle asserts that "...each thing is thought to be not different from its substance, and the essence is said to be the substance of each thing."^E In the second place, the burden of Metaphysics Z, 13 is to show that a universal cannot be either the substance of anything or an element in the substance of anything. The problem here is to reconcile Aristotle's beliefs that knowledge is of universals, that essences are not universals, but that essences can nevertheless be known.

The solution of this difficulty lies in our recognition of the fact that Aristotle's treatment of substance is pervaded by a double meaning. On the one hand, substance is οὐσία, it is the whole thing including its qualities, relations and all of the other ontological categories. On the other hand, substance is τὸ τί ἦν εἶναι, it is the cause of the being what it is of a concrete individual, and this is substance in the role of essential nature. Aristotle claims that we know each thing when we have grasped its primary cause and this is the essence.¹³⁴ Moreover, he further asserts that the essence and what it is the essence of are identical.¹³⁵ What he means by this last is highly problematic and controversial. Aristotle goes part of the way towards a solution when he says:

"...there is an essence only of those things whose formula is a definition. But we have a definition not where we

have a word and a formula identical in meaning...but where there is a formula of something primary; and primary things are those which do not imply the predication of one element in them of another element. Nothing, then, which is not a species of a genus will have an essence - only species will have it."136

As Aristotle says, only those things whose formula is a definition will have an essence, and that essence belongs primarily to the species. Take as an example the species 'man'. The species is arrived at through the combination of the genus 'animal' with the specific difference 'rational', thus the formula, or definition, of the species 'man' is 'rational animal'. But this definition applies not only to the species regarded as a collectivity, but also to each member of that species. As Aristotle says in the Categories:

"...if something is said of a subject both its name and its definition are necessarily predicated of the subject. For example, man is said of a subject, the individual man, and the name is of course predicated (since you will be predicating man of the individual man), and also the definition of man will be predicated of the individual man (since the individual man is also a man). Thus both the name and the definition will be predicated of the subject."6

The above quotation underlines the connection between the species and its members in that whatever is the essence of the species is also the essence of every member of that species.

S. M. Cohen says:

"In the sense in which rationality is the differentia of an animal species, it cannot be the differentia of anything but a species of animal. But any animal whose differentia is rationality will, ex hypothesi, be essentially the same as a man."7

And Ross says that "... 'to be a man' sums up the whole substantial, permanent nature of each individual man and is identical with each and every man..."⁸ If to be a man is to be a rational animal, and if Socrates is a man, then Socrates would have to be a rational animal. Therefore, since the essence of 'man' is 'rational animal' and Socrates is a man, then Socrates, in being a rational animal, is identical to his essence. As Aristotle says: "...the essence is precisely what something is..."¹

What yet remains to be seen is precisely in what way a 'thing' can be said to be the 'same as its essence'. We may well ask if Aristotle intends by this an identification of the essence of Metaphysics Z with the concrete particular 'this' of Categories 5. If he does, then he is asking for a great deal of trouble on the metaphysical level. We shall take up this question again shortly, so for the moment, we may resume our interrupted discussion of the acquisition of knowledge.

Up to this point, then, we have been concerned with explaining how the sense faculties in man separate, represent and recollect the images grasped in sensation. These images give rise to universals of knowledge, but we must now consider another 'type' of knowledge.

What is called 'scientific knowledge' is the capacity to demonstrate the necessary link between the premisses and the conclusion of a syllogism. On interpretation of this is that it shows the necessary connection between a universal and a particular qua instance of the universal. The ability to perform this act belongs to man by nature, but it is 'acquired' through discipline, the proof is that not all men possess scientific knowledge. Even those who do possess it do not exercise it at all times, for example, we may have knowledge but not use it when we are asleep, mad, drunk, or under the influence of a strong passion.¹³⁷

Even though man is a 'thinking being', he is first of all 'a being', he belongs in the world and to the world. And the world, qua ontological order, exists before knowledge of the world.

"The knowable would seem to be prior to knowledge. For as a rule it is of actual things already existing that we acquire knowledge; in few cases, if any, could one find knowledge coming into existence at the same time as what is knowable....For if there is not a knowable there is not knowledge - there will no longer be anything for knowledge to be of - but if there is not knowledge there is nothing to prevent there being a knowable."¹³⁸

But for there to be knowledge, there must not only be a knowable, as Aristotle has just said, there must also be a knower, a being capable of acquiring knowledge. In the case of man, the activity of knowing depends on, and takes place 'in' the $\psi\upsilon\chi\eta$. We have already seen that knowledge is of universals, and that speaking epistemologically, the categories are the highest universals, thus they are dependent for their 'being known' on the $\psi\upsilon\chi\eta$, and of no categories is this more true than of Time and Quantity.

"Whether if soul did not exist time would exist or not, is a question that may fairly be asked; for if there cannot be someone to count there cannot be anything that can be counted, so that evidently there cannot be number; for number is either what has been, or what can be counted. But if nothing but soul, or in soul reason, is qualified to count, there would not be time unless there were soul, but only that of which time is an attribute, i.e. if movement can exist without soul, and

the before and after are attributes of movement, and time is these qua numerable."¹³⁹

Time has much in common with Quantity and Place in that it is continuous and remains so whether it is conceived of as cyclical or linear. But Quantity and Place are also continuous, so what distinguishes Time from them? Clearly, the answer must be the nature of its object. As the measure of movement qua numerable, there must be various 'kinds' of time to account for various 'kinds' of movement. For example, if the movement in question is that of one complete rotation of the earth on its axis, then the measure of time is one solar day; if the movement is that of one complete orbit of the earth around the sun, then the measure is 365 solar days, or one solar year. But if we are measuring the apparent diurnal motion of stars, then we would use not 'solar time', but 'sidereal time'. There is in addition, a phenomenon called 'psychological time' which is an internal perception of the passage of time independent of any external criteria of measurement. For instance, a person watching an exciting film will count five minutes as almost nothing, but to the same person, five minutes in a dentist's chair can seem like an eternity.¹⁴⁰ We may ultimately agree with Aristotle that the 'objective correlative' of time is movement. I suppose we could, if we insisted, call solar time, sidereal time, psychological time, et. al., kinds (species) of 'time' (genus), the supreme universal of which is the Category of Time, but what we would really be saying is that 'the real' exhibits many different kinds of movement, each requiring a system of measurement appropriate to it. Time is, in many ways, the conceptualization of movement qua quantifiable.

What Aristotle has to say about quantity in general, and the 'one' in particular, is of great importance for the light

it sheds on the other categories.

"... 'to be one' means 'to be indivisible, being essentially a "this" and capable of being isolated either in place, or in form or thought'; or perhaps 'to be whole and indivisible'; but it means especially 'to be the first measure of a kind $\lambda\epsilon\gamma\epsilon\upsilon\sigma$ ', and most strictly of quantity; for it is from this that it has been extended to the other categories. For measure is that by which quantity is known; and quantity qua quantity is known either by a 'one' or by a number, and all number is known by a 'one'. Therefore all quantity qua quantity is known by the one, and that by which quantities are primarily known is the one itself; and so the one is the starting-point of number qua number."¹⁴¹

What we have seen up to this point shows that knowledge depends first on the pre-existence of the knowable, and second on the $\psi\upsilon\chi\eta$ of the knowing being. The ontological world is composed of primary substances on which all else depends.¹⁴²

"As regards the primary substances, it is indisputably true that each of them signifies a certain 'this'; for the thing revealed is individual and numerically one."¹⁴³ We also find that "... 'to be one' means 'to be indivisible, being essentially a "this"..."¹⁴⁴ In consequence, we may theorize that it is the unity and indivisibility of primary substances which give rise in the $\psi\upsilon\chi\eta$ to the notion of 'one' which is the foundation of number and therefore of quantity. But in the same passage, Aristotle also informs us that to be 'one' means especially to be the 'first measure of a kind' and most strictly of quantity, for measure is that by which quantity is known. From quantity, the notion of the 'first measure of a kind' is extended to the other categories. The concrete substance, individual, indivisible, and numerically one, is the basis of the notion of 'one', the ultimate foundation of quantity, and Aristotle extends this

dependence on substance to all of the other ontological categories, since all categories come to be only as parts of a concrete unity.¹⁴⁵

If it is through unity, as a measure,¹⁴⁶ that quantity, and by extension, all the other categories, are to be known, what, in this context, may we say about knowledge?

"Knowledge, also, and perception, we call the measure of things...because we come to know something by them - while as a matter of fact they are measured rather than measure other things. But it is with us as if someone else measured us and we came to know how big we are by seeing that he applied the cubit-measure to such and such a fraction of us. But Protagoras says 'man is the measure of all things', as if he had said 'the man who knows' or 'the man who perceives'; and these because they have respectively knowledge and perception, which we say are the measures of objects. Such thinkers are saying nothing, then, while they appear to be saying something remarkable."¹⁴⁷

In this startling paragraph, Aristotle denies that knowledge is a measure, on the contrary, it is itself an object for measurement. In consequence, we may well ask what it is that measures knowledge. But before proceeding to that discussion, several points need to be recalled:

1. That there is "...a science which investigates being as being and the attributes which belong to this in virtue of its own nature."¹⁴⁸
2. That 'being' belongs in the fullest sense to substance.¹⁴⁹
3. That there are several senses in which a thing may be said to 'be' and that these correspond to the categories.¹⁵⁰ (This is so because 'being' is not undifferentiated. 'Being' "...falls immediately into genera..."¹⁵¹ These genera are the categories, the highest 'modes of 'being'').

Thus, the science which investigates 'being' must be the science which investigates substance since the latter and its attributes are the principal and highest modes of 'being'. Substance, considered in its primary sense, is one and indivisible, it is a 'this' and is "...capable of being isolated either in place, or in form or thought..."¹⁵² Since being falls into genera, i.e. the categories, and the categories themselves are substance and its attributes, it can hardly be denied that 'being' is categorially structured. And if 'being' is categorially structured, then everything must be, and this includes knowledge of 'being'.

The notion of unity as a measure gives us access to quantity and the other categories insofar as it is the 'first measure of a kind [$\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma$]'. We already have grounds for suspicion that the 'kinds' that unity is the first measure of are kinds, (or genera), of 'being', i.e. the categories. We are then led to inquire into the relationship between 'unity' and 'being'.

"That in a sense unity means the same as being is clear from the facts that its meanings correspond to the categories one to one, and is not comprised within any category (e.g. it is comprised neither in 'what a thing is' nor in quality, but is related to them just as being is)..."¹⁵³

"Thus, then, the one is the measure of all things, because we come to know the elements in the substance by dividing the things either in respect of quantity or in respect of kind. And the one is indivisible just because the first of each class of things is indivisible."¹⁵⁴ The first of each class of things is substance which is "...individual and numerically one,"¹⁵⁵ therefore indivisible. But each class of things (the categories) is equally indivisible. In the Posterior Analytics, Aristotle calls the categories "...indivisible concepts...true uni-

versals..."¹⁵⁶ The difference between an 'ordinary genus' and a category is that an ordinary genus is divisible into species by the addition of a specific difference,¹⁵⁷ but the categories are "...universal and indivisible..."¹⁵⁸ Aristotle adds that although genera are commonly accompanied by specific differentiae, the indivisible genera that are the categories are exempt from this requirement.¹⁵⁹

The individual categories of 'being' are not only indivisible, but they cannot communicate directly with each other:

"...things which belong to different categories of being...are not analysed into one another or into some one thing."¹⁶⁰

Therefore, if items in different categories of 'being' cannot communicate with (or be analysed into) each other, it would seem to follow that the genera of 'being' to which the items belong must be equally incommunicable within their own system. What we would hope, however, is that different systems of categories can communicate with each other, and it is to this problem that we now turn.

Early in this chapter, I observed that no ontological system of categories, i.e. the categories as involved in the structure of a concrete particular substance (which is the highest manifestation of 'being'), will permit itself to be 'translated' from an 'existential' extramental system to a 'non-existential' mental system without an intervening series of mediations.¹⁶¹ Subsequently we examined the mediations through which sensible substances give rise to universal concepts, the highest of which are the categories. What remains to be seen are the reasons we have for believing that one system of categories can 'communicate with' or be 'translated into' another.

That the categories, as responsible for the 'differentiation of 'being'' should be held to have an ontological function

is not, I think, controversial. That the categories, as the highest classes of predicates, should be thought to have a logical function is, I think, equally uncontroversial. Now, assuming that there is no radical disjunction between ontology and logic, we must ask how the categories get from ontology to logic. In general, as I have argued above,¹⁶² we go from things to discourse about things via the concepts of those same things. Or, to put it another way, we go from ontological categories to logical categories via epistemological categories.

It is the province of the ontological categories to differentiate 'being', to delimit it, and to make it 'be' according to these modes. The highest manifestation of 'being' is substance and its accidents. It is the work of epistemology to study the means by which the form is separated from the substance, how it is represented in the $\psi\upsilon\chi\eta$, and how it is recollected. And, most important, epistemology, as the 'science of knowledge', must account for how things are known. This involves particular study of the process of concept formation whereby beginning with particular images, the $\psi\upsilon\chi\eta$ can evolve concepts of ever-greater generality, viz., species, genera and categories. Once species, genera, and the 'highest genera' have been established, the $\psi\upsilon\chi\eta$ can turn its attention to logic. In general, what distinguishes epistemology from logic is that epistemology is an inductive 'science'. Because Aristotle has no doctrine of 'total abstraction', universals have to be 'built up' from particulars through induction. In what might be called the 'chronology of induction', the categories as the highest, or most universal, universals are acquired 'last'. Because the categories are arrived at relatively 'late' when compared with the lower universals, their existence is not immediately obvious. But, to return to logic, this science, in contrast to epistemology, is deductive, it proceeds from the universals acquired by

knowledge through induction. In a logical demonstration, the previously acquired universals are the most important parts of the primary premisses which must not only be known beforehand, but they must be better known than the conclusion.¹⁶³ The universals as employed by logic are the same universals that are acquired by knowledge. Logical discourse, as found in teaching in general, and scientific demonstration in particular, depend upon knowledge. I believe that this is part of what Aristotle means when he says: "All instruction given or received by way of argument proceeds from pre-existent knowledge."¹⁶⁴ And at this point, we might remind ourselves of what the source of this knowledge is:

"Aristotle's philosophy is 'empirical' in the sense that all knowledge arises from, must remain connected with, and must return to the categorially structured perceptual world."¹⁶⁵

The point that needs to be made now is that if logic is categorially structured, and logic depends upon knowledge, and knowledge is of the categorially structured sensible world, then knowledge which 'stands between' ontology and logic, must also be categorially structured.

At several places in this dissertation, I ~~anticipated~~ this moment by calling the categories of ontology and logic 'commensurable', by which I mean "...measurable by the same standard..."¹⁶⁶ The notion of commensurability brings us back to the notion of measure, and this recalls our earlier discussion of the 'one'. Since the 'one' is the 'first measure of a kind',¹⁶⁷ and "...measure is that by which quantity is known...",¹⁶⁸ and by extension, the 'one' is also the measure of the other categories¹⁶⁹ and is that by which they are known, we may conclude that the knowing being's access to the categories as objects of knowledge is through the 'one' as measure. To 'know' the categories as ob-

jects of knowledge is to know that they are the highest universals, and that they are 'one' because they are indivisible. Recalling Aristotle's earlier assertion that "...unity means the same as being.../because/ its meanings correspond to the categories one to one...",¹⁷⁰ we should not be surprised to find that the 'one' which is the measure of the categories should be co-extensive with the categories. In fact, Aristotle tells us that:

"The measure is always homogeneous /ὁμοίως/ with the thing measured; the measure of spatial magnitudes is a spatial magnitude, and...that of lengths is a length, that of breadth a breadth..."¹⁷¹

Since the identification of unity with the categories results in the identification of the measure with what is measured, and the measure "...is always homogeneous with the thing measured...",¹⁷² may we then conclude that the measure of a category is a category, and that this is what Aristotle means when he says that knowledge is measured?¹⁷³ In other words, that the knowledge of categories is measured by the categories?

According to this interpretation, we would see the function of the ontological categories as what differentiates, delimits, and 'measures' 'being'. The epistemological categories differentiate, delimit, and 'measure' knowledge in accordance with the modes of 'being' which 'impose' themselves upon the ψυχή through the process of formal separation and concept formation. The logical categories differentiate, delimit, and 'measure' the content of scientific discourse so that what is predicated universally and necessarily of things will be a true reflection of our knowledge of 'the real'.

This interpretation of the categories as three commensurable and interrelated systems may draw some comfort from what Aristotle calls the most certain of all principles,¹⁷⁴ i.e. what we now call the law of non-contradiction. This law may be formulated thus: A thing cannot both be, and not be, at the same time and in the same respect. Or, as Aristotle puts it: "...the same attribute cannot at the same time belong and not belong to the same subject and in the same respect..."¹⁷⁵ The law, as formulated is commonly thought to belong to the realm of logic, but it is also an undeniable law of 'being' and therefore, of knowledge. The law of non-contradiction provides us with an instance of something which cuts across all three categorial systems with equal force. In other words, if something cannot 'be' in this way, then it cannot be known in this way, and it cannot be predicated in this way.

NOTES TO CHAPTER V

1. S. Mansion, "La doctrine aristotélicienne de la substance et le traité des catégories," p. 1100.
2. Cf. Meta., Δ, 28, 1024b13-16; E, 1, 1026a35-36.
3. Ibid., Z, 1, 1028a34-35.
4. Ibid., Z, 9, 1034b7-19.
5. Prior An., I, 37, 49a6-8.
6. De Gen. et Corr., I, 3, 319a9-13.
7. De Int., 2, 16a19; 16b6.
8. See Chapter IV, pp. 160-173.
9. De Anima, II, 1, 412a20-22.
10. J. A. Smith, (trans.), De Anima, in McKeon, op. cit., p. 555.
11. De Anima., II, 1, 412b10-11.
12. Smith, Ibid., pp. 555-56.
13. On this question, I refer the reader to an excellent article by Joseph Owens entitled: "Aristotle's Definition of Soul," in Aristotle: The Collected Papers of Joseph Owens, (John R. Catan, ed.), (Albany: State University of New York Press, 1981), pp. 109-121.
14. De Anima, II, 2, 413a21.
15. Ibid., II, 3, 414b1.
16. Ibid., 414b18.
17. Ibid., II, 3, 414b17.
18. Ibid., 414b19.
19. Ibid., III, 9, 433a12; Politics, VII, 13, 1332b5.

20. Topics, VI, 14, 151b1.
21. Ibid., V, 2, 130b8. Aristotle repeats this notion at V, 3, 132a20; V, 4, 133a21; V, 5, 134a15; and VI, 3, 140a36.
22. Post. An., II, 19, 100a13.
23. Nic. Eth., I, 7, 1097b25-1098a17.
24. De Anima, II, 1, 412a9.
25. Ibid., III, 2, 425b22-24.
26. See especially De Anima, II, 5, 417a3-418a6.
27. Ibid., 417a6-9.
28. Ibid., 418a4-7.
29. John Ruskin, Modern Painters, III, (New York: John Wiley, 1860), pp. 156-57.
30. John Wild, Introduction to Realistic Philosophy, (New York: Harper & Row, 1948), pp. 413-14.
31. De Anima, III, 2, 425b26-426a1.
32. Ibid., 426b7-27.
33. Ibid., III, 4, 429b29.
34. Ibid., 430a2-9.
35. See note 32, above.
36. Ibid., 426b20.
37. Ibid., III, 8, 432a2.
38. Ibid., 431b24-432a2.
39. Ibid., III, 1, 424b20-22; 427a15.
40. Ibid., 424b20.
41. Ibid., III, 8, 432a6-9.
42. Ibid., III, 7, 431a14-16.

43. Ibid., 431b2.
44. Ibid., 431a16.
45. Frances A. Yates, The Art of Memory,
(Harmondsworth: Penguin Books, 1978), p. 46.
46. Post. An., II, 19, 100a11-12.
47. Ibid., 100a15-b3.
48. Joseph Owens, The Doctrine of Being in the Aristotelian Metaphysics, (Toronto: Pontifical Institute of Medieval Studies, 1978), pp. 382-83.
49. Cf. Post. An., I, 18, 81b3; De Caelo, III, 1, 299a15; De Anima, III, 7, 431b16; Meta., K, 2, 1060a28; and Nic. Eth., VI, 8, 1142a18.
50. Phaedrus, 249C.
51. See below, pp. 210-11.
52. Post. An., I, 18, 81a38-b9.
53. Ibid., I, 4, 73a21-24.
54. Prior An., I, 4, 25b31.
55. Ibid., I, 1, 24b18-19.
56. Topics., I, 4, 101b21.
57. De Int., 7, 17a38; Phys., II, 2, 193b24, ff.; Meta., A, 9, 990a33-993a11; Z, 15, 1040a9; M, 4, 1078b6-1079b11; 9, 1086a18-10, 1087a25.
58. Post. An., I, 31, 87b28-35.
59. De Anima, III, 3, 428a1.
60. Ibid., III, 7, 431b3.
61. Ibid., 431a16.
62. De Memoria et Rem., 1, 450a22.

63. Ibid., 449b15.
64. Ibid., 450a26.
65. Ibid., 450a21.
66. Ibid., 450a14.
67. Ibid., 450a16.
68. Ibid., 450a27-b1. The interpolation in square brackets belongs to the text quoted.
69. Ibid., 2, 453a7-9.
70. Ibid., 451b10-12. The interpolation in square brackets belongs to the text quoted.
71. Phys., III, 1, 201a10.
72. Ibid., VIII, 5, 256b15; De Anima, III, 10, 433b13-15.
73. Meta., 8, 8, 1049b23-24.
74. De Anima, II, 5, 417a12-14.
75. For a discussion of the controversy surrounding the Aristotelian notion of 'prime matter', see A. Edel, op. cit., pp. 408-09, note 9.
76. De Anima, III, 4, 429a12-18.
77. Ibid., III, 5, 430a10-13.
78. Ibid., 430a14-19.
79. Ibid., II, 5, 417b20-25.
80. Post. An., I, 31, 87b28-35. See note 58, above.
81. Ibid., II, 19, 100a4-6.
82. Ibid., 100a8-9.
83. Ibid., 100a7-8.
84. Ibid., 100a17-b1.

85. De Int., 7, 17a37-40.
86. Nic. Eth., VI, 3, 1139b25-30.
87. J. A. Smith, "TOΔE TI in Aristotle,"
The Classical Review, 35(1921), p. 19.
88. Meta., Γ, 5, 1010b35-1011a1.
89. Cf., De Motu Animalium, 7, 701b20; 11, 703b19-21.
90. Cat., 5, 2b5-6.
91. Ross, Aristotle, p. 24.
92. Hamelin, op. cit., p. 100.
93. "...l'individu, échappant, en raison de sa contingence
radicale, aux conditions d'intelligibilité de la science,
n'est, en fin de compte, ni connaissable, ni réel."
Tricot, op. cit., p. 442.
94. Cf. Chapter III, pp. 109-19.
95. Ibid., note 57.
96. Cat., 5, 2a11-13.
97. Meta., A, 6, 987b10-13.
98. Ibid.
99. De Anima, II, 1, 412a7-10.
100. Cat., 2, 1b1-2.
101. J. Owens, "The Grounds of Universality in Aristotle,"
in Aristotle: The Collected Papers of Joseph Owens, (John
R. Catan, ed.), (Albany: State University of New York
Press, 1981), p. 49.
102. Owens, "Aristotle on Categories," p. 81.
103. Ibid., pp. 81-83.
104. Ibid., pp. 81-82, note 26.

105. Ibid., p. 81.
106. Rodier, art. cit., p. 20. Cf. Chapter III, note 20.
107. Michael Novak, "Toward Understanding Aristotle's Categories," Philosophy and Phenomenological Research, 26(1965), p. 122.
108. Meta., M, 10, 1086b33.
109. Rodier, art. cit., pp. 173-74.
110. Ibid., pp. 174-75.
111. For the purposes of the example, I am overlooking the fact that something is either white or it isn't. Something that is 'off-white' can be called white only by analogy, and the same is true of black. Nevertheless, the example would hold for any other primary colour.
112. Cat., 2, 1b1.
113. Meta., M, 10, 1087a18-20.
114. See Chapter IV, note 10.
115. Meta., 2, 6, 1031b18.
116. Phys., I, 2, 185a31; Meta., A, 1, 1069a25.
117. Cat., 5, 2a11-13.
118. Ibid., 2, 1a28.
119. "...a specific differentia, if added to the genus, always makes a species." Topics, VI, 6, 143b7-8.
120. Post. An., II, 19, 100a15-b2.
121. Ibid., 100b1.
122. W. D. Ross, Aristotle's Prior and Posterior Analytics, (Oxford: Clarendon Press, 1949), p. 678.
123. I shall have more to say about the conceptualization of the other categories later.

124. Cat., 5, 2b6.
125. Meta., Z, 6, 1031b28.
126. Ibid., 1032a5.
127. Ibid., 1031b18-20.
128. Ibid., 1031b22-28.
129. See Chapter IV, Section 3 (b), and Appendix.
130. Meta., Z, 13, 1038b35.
131. See note 20, above.
132. De Anima, II, 5, 417b23; Nic. Eth., X, 9, 1180b15.
133. Meta., Z, 6, 1031b20.
134. Ibid., A, 3, 983a24-27.
135. Ibid., Z, 6, 1031b18.
136. Ibid., Z, 4, 1030a6-12.
137. Nic. Eth., VII, 3, 1147a12-17.
138. Cat., 7, 7b23-31.
139. Phys., IV, 14, 223a16-28.
140. "Even so trivial matter as cooking an egg demands an attention which is conscious of the passage of time..."
Sir Arthur Conan Doyle, "The Problem of Thor Bridge,"
in The Annotated Sherlock Holmes, II, (Edited, with an
Introduction, Notes, and Bibliography by William S. Baring-
Gould), (New York: Clarkson N. Potter, Inc., 1967),
p. 589.
141. Meta., I, 1, 1052b15-24.
142. Cat., 5, 2b4-6.
143. Ibid., 5, 3b10-11.
144. Meta., I, 1, 1052b15.

145. Ibid., Z, 9, 1034b8-19.
146. Ibid., I, 1, 1053b4-5.
147. Ibid., 1053a31-b3.
148. Ibid., Γ, 4, 1003a21-22.
149. De Sophisticis Elenchis, 7, 169a34-37. See Chapter IV, note 74.
150. Meta., Z, 1, 1028a10-30.
151. Ibid., Γ, 2, 1004a4.
152. Ibid., I, 1, 1052b16.
153. Ibid., I, 2, 1054a13-16.
154. Ibid., I, 1, 1053a18-21.
155. Cat., 5, 2b6.
156. Post. An., II, 19, 100b3.
157. See note 119, above.
158. Meta., Δ, 3, 1014b9.
159. Ibid., 1014b14.
160. Ibid., Δ, 28, 1024b13-16.
161. See page 184, above.
162. Chapter V, Section 3.
163. Post. An., I, 2, 72a25-34.
164. Ibid., I, 1, 71a1.
165. Martha Husain, "The Question 'What is Being' and its Aristotelian Answer," The New Scholasticism, 50 (1976), p. 307.
166. The Concise Oxford Dictionary of Current English, (J. B. Sykes, ed.), (Oxford: Clarendon Press, 1982), p. 188.

- 167. Meta., I, 1, 1052b18.
- 168. Ibid., 1052b20.
- 169. Ibid.
- 170. Ibid., I, 2, 1054a13-14.
- 171. Ibid., I, 1, 1053a24-26.
- 172. Ibid., 1053a24.
- 173. Ibid., 1053a31-33.
- 174. Ibid., Γ, 3, 1005b17.
- 175. Ibid., 1005b18-20.

α. "By a 'sense' is meant what has the power of receiving into itself the sensible forms of things without the matter. This must be conceived of as taking place in the way in which a piece of wax takes on the impress of a signet ring without the iron or gold; we say that what produces the impression is a signet of bronze or gold, but its particular metallic constitution makes no difference: in a similar way the sense is affected by what is coloured or flavoured or sounding, but it is indifferent what in each case the substance is; what alone matters is what quality it has..." [De Anima, II, 12, 424a-17-22].

β. In Aristotle, the notion of abstraction (ἀφαίρεσις), means 'to take away from' and is most often used in connection with the objects of mathematics. In Meta., K, 3, 1061a29-34, he says: "...the mathematician investigates abstractions [ἀφαίρεσις]...for before beginning his investigation he strips off all the sensible qualities...and leaves only the quantitative and continuous..." Thus, as I say on p. 200, ἀφαίρεσις refers to the suppression by the mind of all incidental features save the mathematical. Similarly, at Nic. Eth., VI, 8, 1142a18, Aristotle uses the same term (ἀφαίρεσις) to say that the objects of mathematics exist by abstraction. I contrast this notion with 'separation' (χωρίζειν). On p. 199, I imply that χωρίζειν refers to the 'conceptual' not 'existential' separation of a form from its matter. At Phys., II, 2, 194b13, Aristotle says: "...the physicist is concerned only with things

whose forms are separable [$\chi\omega\rho\iota\sigma\tau\acute{\alpha}$] indeed, but do not exist apart from matter." And at 194b15, he says that it is the business of first philosophy to examine the truly separable ($\chi\omega\rho\iota\sigma\tau\acute{\alpha}\nu$) form. The point of this distinction is that when we moderns use the term 'abstraction', the process that we refer to has more points of similarity to what Aristotle called 'separation' than to what he called 'abstraction'.

γ. De Anima, III, 2, 426a1-12.

δ. i.e. 'man' must be predicable of 'a man' and, for this to happen, a man must have an essence, the essence of 'man'. Thus the form, or essence, of 'man' is transmitted to the new man by his father who, being antecedently a member of the species 'man', transmits the essential characteristics of that species to his son.

ε. Meta., Z, 6, 1031a17-18.

ζ. Cat., 5, 2a19-26.

η. S. M. Cohen, "Proper Differentiae, the Unity of Definition, and Aristotle's Essentialism, The New Scholasticism, 55 (1981) pp. 233-34.

θ. Ross, Aristotle's Metaphysics, II, p. 176.

ι. Meta., Z, 4, 1030a2, cf. Z, 4, 1029b14-15; b5. I shall return to this question in note α, p. 269

SUMMARY AND CONCLUSION

When I undertook the research and the writing of this dissertation, I was struck by a curious phenomenon which manifested itself quite early in my investigations. By and large, the authors of the secondary literature on Aristotle's Categories seemed to have divided themselves into two opposing factions: the one favouring a reading of the treatise that was primarily logical in nature, and the other opting for a more ontological interpretation. I waded into this controversy ever-mindful of the truism that if two positions are contradictory, then they may both be wrong but they may not both be right. However, a closer examination revealed that both sides had at least some textual and doctrinal basis for their assertions. Given that the logical and ontological positions taken tended, to some degree, to be mutually exclusive, my faith in the truism was shaken. If, for the sake of argument, it was granted that both sides were right as far as they went, then what was the primary function of the theory of categories?

Logicians and philosophers of language had a vested interest in claiming the categories for logic. But, metaphysicians and ontologists had equally compelling reasons for arguing that the categories are, in some way, constitutive of 'the real'. Logicians pointed to the Organon and argued that the categories are the highest classes of logical predicates, and metaphysicians pointed to the Metaphysics and asserted that the categories are the highest modes of 'being'. In short, each side could invoke the authority of Aristotle in justification of their beliefs, and there the matter rested.

In this early period of my research, it became increasingly clear that the categories, far from being 'just' ontological or logical, did in fact play both roles distinctly in Aristotle's philosophy. What was not so clear was how these two functions could be reconciled. In other words, it remained to be seen how the ontological categories, in themselves extramental and 'existential' since they are involved in the ontological structure of what exists, could be 'translated' into a 'non-existential' mental system of logical categories. It then became evident that such a 'translation', if possible, would involve an intervening series of mediations. Armed with this realization, I found myself with a new direction to follow in my pursuit of whatever it was that linked Aristotle's ontology to his logic.

Almost by way of preface to the main problem, I felt that it was crucial, from the outset, to be specifically aware of something so obvious that it ought to have passed without comment, i.e. that Aristotle's philosophy did not spring from a vacuum. He had predecessors, the greatest of whom was Plato. The twenty years that Aristotle spent in the Academy provided him with an intellectual frame of reference, a methodological system and a normative structure which, if nothing else, gave him a context for further development. Ultimately, Aristotle would abandon Plato's dialectical method with its geometrical model in favour of an inductive method with a biological model, but this rejection was minor when compared to his greater rebellion.

Plato's philosophy is almost totally dominated by his conception of the world of Intelligible Forms. He had scorned the sensible world as incapable of yielding true knowledge of itself, and sought instead to situate the 'truly real' and the 'truly intelligible' in a transcendent world of changeless perfection. But the theory of Forms still left him with at least

two major problems: why are things what they appear to be, and how are they intelligible? In answer to the first question, Plato proposed the theory of participation. Whatever being the objects of sense may be said to have comes from their 'participation' in the eternal Forms. This theory was never adequately clarified and remains problematic to the present day. As for the second question, Plato's answer is ingenious. He declares that the soul had a prior existence in the world of Forms and that the objects of the sensible world trigger a recollection of what had been previously known. The soul could then recover the knowledge it 'lost' during its incarnation through the process of dialectic. Aristotle's rejection of the theory of Intelligible Forms and all that it entailed, preempted any Aristotelian developments along these lines. Ultimately he saw that the questions of 'being' and intelligibility would require new answers.

In the early treatise Categories, Aristotle sought to dispel the purely phenomenal nature of the Platonic world of sense and to stabilize it so that it might become a fit object for knowledge. Of central concern, not only to the Categories, but to the entire Aristotelian corpus, is the notion of substance. The dominant conception of substance in the Categories is the one that bears the most ontological weight, i.e., $\pi\rho\acute{\omega}\tau\eta\ \sigma\upsilon\sigma\tau\alpha$, the individual man or horse. Primary substance is $\alpha\tau\acute{o}\delta\epsilon\ \tau\epsilon$, a 'this', and it is what Aristotle calls substance "...most strictly, primarily, and most of all..."¹ The importance of primary substance in the Categories cannot be overstressed. Aristotle gives an indication of this when he says:

"...all the other things are either said of the primary substances as subjects or in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist."²

We find in this quotation an insistence on the primacy of primary substance, but Aristotle hints that there are other things besides primary substance and that these are dependent on it. This should not surprise us because it foreshadows a later statement to the effect that "The world is not such that a thing is unrelated to another...",³ and although substance is the only category capable of independent existence, there are several senses in which it does not exist apart from other things. One of these was captured, no doubt unintentionally, by Proust when he wrote: "L'individu baigne dans quelque chose de plus général que lui."⁴ In a deeply fundamental way, the individual is steeped in its species and genus. The ontological distribution of the genus 'animal' and the species 'man' among all individual men is the ontological configuration underlying the logical predications: Socrates is a 'man', i.e. Socrates is a member of the species 'man', and 'man' is an 'animal'. But even here, if no individual primary substances, as the members of a species, existed, then the species would not exist either.

The species as logically predicated of its members is identical in form to the species as ontologically distributed among its members. But there is a very significant difference between existing ontologically and being predicated of logically. What permits passage between the ontological and logical orders is knowledge. My previous account of the process of coming to know the universal⁵ has already been more than sufficiently exhaustive (and exhausting) to require any repetition here, but in brief, the process is this: The presence of a concrete particular object under the proper conditions, (i.e. sufficient light, a transparent and unobstructed medium, and so forth), excites the sensory powers to activity. Through the act of sensation, the form of the object is separated from

it and is represented in the $\psi\upsilon\chi\eta$ as an image. The form as image is specifically identical with, though numerically different from, the concrete particular. When the $\psi\upsilon\chi\eta$ has acquired the images of a sufficient number of particulars of a given kind, it discerns in these individuals certain characteristics which they all have in common. This realization leads to the concept of species. This notion is of greater generality than the image of any one particular contained in its comprehension. The species is commensurately universal, it can be applied to each of its particulars in turn because it is specifically identical with each of them. The fact that the species, as it exists and as it is known, is 'built up' out of its particulars, accounts for this phenomenon in no small degree.

What makes the entire process of concept formation possible is the form. Basically, every substance is a compound of matter and form. These two principles account not only for the fact that a thing exists, but also for the fact that it is knowable. In other words, for a thing to 'be' it must 'be something'. This 'something' is contained in the essence, or form, it is that in the thing which makes it to be the kind of thing it is. But the essence does not, in itself, exist in some vague universal twilight zone, nor does it run around by itself. The essence is the essence of the concrete object that is constituted by it. The essence, or form, is individuated and concretized by the matter that it informs. Thus, on the ontological level, the essence enters into the composition of the concrete object. Without essence the object would not only not be what it is, but it would not 'be anything'. Thus, in one sense, the individual thing and its essence are one and the same.^a What gives essence the right to be called substance

in the 'highest sense', however, is that it is the primary cause of the substance which concretely exists..

From the ontological function of the form, we turn to the epistemological. As we have seen, the form that is separated through sensation is specifically identical to, though numerically different from, the form in the object. It is the fact that the form is thus 'separable' from its matter that accounts for its presence in the $\phi\upsilon\chi\eta$ where it proceeds through increasing levels of generality. If the form that has been separated is that of a primary substance, then the levels that it passes through are species and genus, with its ultimate terminus in the category of Substance. If, however, the 'form' that has been separated is that of a particular non-substance, then it still passes through the levels of species and genera, but it ends in one of the accidental categories.

For Aristotle, 'being' belongs in the highest sense to substance and, by extension, to the attributes of substance. This is why he says that 'being' falls immediately into genera. These genera of 'being' are the categories. We have seen how particular substances and individual non-substances give rise ultimately to the categories as the highest universals of knowledge, but there is a particular way by which the categories are known and this is through the notion of 'unity' or the 'one'. In brief, there are as many meanings of the notion 'unity' as there are categories, and here again, we cannot escape the consequences of the primacy of individual substances.

We have seen that the whole process of concept formation (which has its terminus in the categories) ultimately begins when the sensory powers are excited to activity by an individual concrete existent. This concrete existent is individual and one in number. Now, the problem with knowing an individual concrete substance is not with the fact that it is individual,

but with the fact that it is contingent due to the matter which is the other 'part' of its 'being'. Thus, for the process of knowing to even begin, the matter of the object has to be left behind 'in' the object. What is separated, then, is this particular form, one in number, of this particular substance, also one in number. For the thing to be a substance is, among other things, for it to be one in number therefore indivisible. From the perspective of epistemology, even on this elementary level, the notion of unity first appears, i.e. this thing which I grasp through sensation is one thing. In a broader context, the 'one' is the foundation of number, which in turn leads to quantity, and finally to the Category of Quantity. Through the 'one' as measure, the mind gains access to the notion of quantity and from quantity to the other categories.^β Strictly speaking, the individual substance is not known directly qua individual, no individual can be immediately known, it can only be known through the mediation of one or more universals. The universal which conveys more knowledge about an individual substance is its species because being a 'secondary substance', it is 'closer' to the individual than the genus or category. The species as universal is more than equal to this task because it was 'built up' out of the particulars for whom it must mediate and with whom it is specifically identical. Speaking at the highest level of mediation, the individual substance qua 'one' is known through the Category of Quantity, and qua substance through the Category of Substance. But if the individual to be known is not a primary substance, but rather a particular non-substance, e.g. this shade of blue, then it would pass through the same ascending levels of generalization (species and genus) and end in the Category of Quality. Thus the particular would come to be known as 'one' quality of a substance.

For Aristotle, knowledge which is of universals, arises from the categorially structured sensible world. But it must be remembered that the beginning of knowledge is sensation and sensation can only take place in the presence of an external object. The $\psi\upsilon\chi\eta$ is almost constantly bombarded with the sense impressions of external objects, objects which, in themselves, are categorially structured, and were so long before we ever knew this. In the act of sensation, the $\psi\upsilon\chi\eta$ separates the form of the object, and the particular form is represented in the $\psi\upsilon\chi\eta$ as an image. The object in the world is a particular substance that cannot exist apart from its categorial relations, and in a similar way, the image of the object, if it is to be a truly non-falsified representation of the object, cannot exist apart from the 'same' categorial relations. Thus, even at the earliest stage of cognition, the image of the object and its categorial relations 'impose' themselves upon the $\psi\upsilon\chi\eta$ which cannot do other than receive the sense impressions of what is 'there'. Gradually, through the acquisition of more forms of objects, the $\psi\upsilon\chi\eta$ arrives at general notions about those objects. These general notions include the ways in which the objects are similar or dissimilar to each other. For example, objects can be called similar, or 'the same' if they belong to the same species. This notion implies that the $\psi\upsilon\chi\eta$ is able to discern in a certain class of particulars those features which all of the particulars have in common, it is this similarity which is the basis for their particular classification. Thus, a man and a horse are similar in that they are both primary substances, they are dissimilar in species and the same in genus, ultimately they both belong to the Category of Substance.

In the case of a man whom we sense, his form is separated from its matter and enters the $\psi\upsilon\chi\eta$. But it is not the form

qua universal that is separated, but rather the form of this individual, and this individual is distinguished from all others by these particular accidents which are inseparable from the substance of the individual, and therefore inseparable from the image of the individual. I would add parenthetically that, of course, the mind can suppress certain or indeed all accidental attributes as they pertain to a particular image. The imagination is particularly good at this, and from this fact we derive such odd images as centaurs, mermaids and the like. But it remains true that the image in all of its aspects had to have been accurately conveyed before the mind could begin to traffic with the particulars. I could, for instance, conjure up an image of Woody Allen with green hair rather than red, but for me, the 'real' Woody Allen is an image of this particular man and not another, qualified by these particular accidents and not others.

The purpose of the above excursion was to indicate not only the way in which the forms of substances enter the $\psi\upsilon\chi\eta$, but also the way in which the 'forms' of accidents enter. This is what I meant when I said earlier that the categorially structured external world 'imposes' itself upon the $\psi\upsilon\chi\eta$. Once the substantial and non-substantial particulars have passed through the required levels of generalization all the way to the categories, it is then through the mediation of the categories as universals that the ontological world is known as categorially structured. In this respect, Aristotle is a long way from Kant. Aristotle's categories are 'imposed' by 'the real' upon the $\psi\upsilon\chi\eta$, whereas Kant's are 'imposed' by the mind upon the chaotic manifold of sensation. Thus on one level Kant is right when he says that Aristotle's categories are empirically derived, but he is wrong in concluding that the acquisition of the categories is, therefore, arbitrary.

In Chapter I, I raised, albeit peripherally, the problem of the One and the Many, the predominant obsession of the pre-Socratics. One of the excesses that this problem led to was Parmenides' assertion that Being is One and the consequent denial of any multiplicity. In the philosophy of Socrates and Plato, the method of dialectic was used precisely to find the One in the Many. With Aristotle, this problem takes yet another twist. Aristotle identifies the One with Being, but this is not to say that Being is One. On the contrary, 'being' is differentiated by the categories given that these are the genera into which 'being' immediately falls. As for the notion of the 'one', this, in its primary meaning, is to be the first measure of a kind. A kind of what? A kind of 'being'. Thus, there are as many meanings of 'one' as there are categories, because the categories themselves are indivisible. Aristotle concludes that the mind's ultimate access to the categories is through the 'one' as a measure, and that which measures is always homogeneous with that which is measured. Thus the 'one' which measures and the categories which are measured are themselves 'one'. Owing to the fact that the categories are 'one' they share in the primary function of the 'one' which is to be a measure. The notion of the 'category as measure' is fascinating. Since 'being' is differentiated by the categories, we may say that 'being' is delimited by them, and so 'measured' by them. This is to say that the highest manifestations of 'being' (substances) are fixed quantitatively, qualitatively, relationally, spatially, temporally, and so forth. In other words, that 'being' is 'fixed', determined and 'measured' according to certain ultimate standards. For the mind to be aware that 'being' is so differentiated and 'measured' is for it to be aware that the ontological categories are known through the mediation of, or with reference to, the same specifically

identical though numerically different, standards by which 'being' is 'measured', i.e. the categories. Thus the categories 'measure' knowledge in the same way that the ontological categories 'measure' 'being'. The relationship between 'being' and knowledge can thus be seen as the foundation of logic. The categories, as the highest universals that knowledge 'knows', are the starting point for the $\psi\upsilon\chi\eta$'s 'return' to the world of sense through scientific demonstration from universal to particular. Thus, the categories of 'being' are known as categories of knowledge. The categories of logic, which is to say the categories of knowledge as employed by logic, 'measure' and 'fix' the content of scientific discourse so that what is asserted will (or should) be the way in which 'being' is known.

The major concepts of Aristotle's philosophy, the categories, the four causes, actuality and potentiality, matter and form, unity and goodness, to name but a few, "...are all formulated with one end in view: the development of the theory of the structure of intelligibility of what exists."⁶ In many ways, the theory of categories is the ultimate reply to Plato. It will be remembered that Plato had scorned the sensible world as incapable of yielding knowledge of itself, so he situated the ground of 'being' and intelligibility in a transcendent world of changeless perfection. Aristotle, on the contrary, abolished the world of transcendence and made the ground of 'being' and the ground of intelligibility (the form) co-extensive with substance. In this way, substance and the non-substance categories are supremely immanent in the cosmos and are the ground of the being and intelligibility of what exists.

It is to be hoped that this interpretation of Aristotle has provided good reasons for believing that the categories are not 'just' logical in nature, and not 'just' ontological, but that these two 'categorical systems' are commensurable,

but by 'commensurable' I do not mean 'identical' in the strict sense. The categories of ontology and logic are identical in form, or 'specifically identical', they are not identical in number, nor do they have the same 'ontological weight'. For the categories of ontology and logic to be commensurable means, according to my interpretation, that they must both be referred to a third system. This third system would have to be something which was not ontology as such, nor logic as such, but something which was capable of standing between them and effecting a 'translation' of one to another. I believe that this third 'something' is knowledge. Knowledge arises from 'the real', thus knowledge is not 'the real', but of 'the real'. The categorially structured ontological world provides the sensible substances which are the starting points of the process of coming to know the universal. Knowledge is of the universal, and the universal is the starting point of logic. In the end, the ontological, epistemological, and logical categories are all measurable by the same standard, i.e. by the 'one' as measure. In this way, the 'one' is trans-categorical and is the ultimate ground of their commensurability.

When I began this dissertation, I had 'ontological categories' and 'logical categories' and no convincing way to get from one to the other. If, at the end of this dissertation, I have provided adequate, or even good, reasons for believing that 'epistemological categories' will get us from ontology to logic, then I will hope to have shown thereby how the methodological function of Aristotle's categories might be extended. Should it be reproached that my interpretation of the categories is a shade too architectonic, I would reply that proportion and harmony (which are, in some degree, implicit in the notion of commensurability), always exerted a strong appeal to the Greek mind and, after all, Aristotle was a Greek.

NOTES TO SUMMARY AND CONCLUSION

1. Cat., 5, 2a11.
2. Ibid., 5, 2b4-6.
3. Meta., A, 10, 1075a18.
4. Marcel Proust, A la recherche du temps perdu, V, A l'ombre des jeunes filles en fleurs, (Paris: Gallimard, 1965), p. 180.
5. Chapter V, section 3.
6. Hofstadter, art. cit., p. 176.

α. Admittedly, this is a controversial statement which Aristotle, in some places, seems to subscribe to while, in others, he backs away. On the one hand, he says: "...to know each thing...is just to know its essence, so that even by the exhibition of instances it becomes clear that both must be one." [Meta., Z, 6, 1031b20-22]. Again, "The essence of each thing is what it is said to be propter se. For being you is not being musical, since you are not by your very nature musical. What, then, you are by your very nature is your essence." [Ibid., Z, 4, 1029b14-15]. Later on, however, he appears to have second thoughts and expresses them most clearly thus: "...the essence certainly attaches to the form and the actuality. For 'soul' and 'to be soul' are the same, but 'to be man' and 'man' are not the same unless even the bare soul is to be called man; and thus on one interpretation the thing is the same as its essence, and on another it is not." [Ibid., H, 3, 1043b1-4].

Aristotle clarifies part of this apparent contradiction when he says: "But things which are of the nature of matter, or of wholes which contain matter, are not the same as their essences..." [Ibid., Z, 11, 1037b4-5]. In other words, of things constituted of both essence and matter, they contain something (matter) which is something 'in addition to' the essence and thus, the essence is not equal to matter plus essence. Aristotle explains why in the following quotations taken from Richard Hope's translation of the Metaphysics: "Since a definition conveys a concept (λόγος), and every concept has parts, and since as the concept is related to the object (πρᾶγμα), so

the part of the concept is related to the part of the object, it may be asked on this basis whether the concept of the parts must inhere in the concept of the whole (ὅλου) or not. It appears that in some cases the concept is divisible into parts [just as the object is divisible]; but that in other cases it is not." [Ibid., Z, 10, 1034b20-24]. He continues by saying: "...let us...inquire about the parts of which primary being (οὐσία) consists. Given a material (ὕλη), a form (εἶδος), and the composite of these, the primary being is this union of matter and form; therefore, its material is in a sense a part of it; but in another sense it is not, for its parts are only the elements which are stated in the definition...bronze is a part of the statue as an object (i.e. a 'composite' (συνόλου)), but forms no part of the statue as a concept. For only the form, or the object as having form, can be expressed in the concept; whereas the material element by itself cannot be expressed in the concept." [Ibid., 1034b34-a9].

Here is what we are looking for, viz. an identification of the essence (stated as a definition) with the form of the concrete object. Thus essence equals form, but does not equal the combined form-in-matter. In any attempt at a definition, we must be clear on what belongs to the form and what belongs to matter, otherwise it will not be possible to define anything (cf. Z, 11, incipit). Aristotle further indicates his awareness that the case of man provides a particular problem: "Where the same forms...are found under diverse material embodiments, such as the circle in bronze, wood, or stone, it seems clear that, because bronze and stone are readily differentiated, they are no part of the primary being of the circle. Where the same form and matter are regularly found together, though there is nothing to prevent the same distinction being made, it is hard to make the appropriate discrimination. If all circles ever seen had been of bronze, the bronze would nevertheless be no part of their forms. So the form of man is always to be found in flesh and bone and such parts: are these, then, also parts of its form, that is, of the concept of "man"; or are they not rather his material? It is because man is not found with other material embodiments that we are unable to distinguish readily." [Ibid., 1036a31-b7].

We now have the means to explain what Aristotle meant when I quoted him earlier as saying: "...the essence certainly attaches to the form and the actuality. For 'soul' and 'to be soul' are the same, but 'to be man' and 'man' are not the same, unless even the bare soul is to be called man; and thus on one interpretation the thing is the same as its essence, and on another it is not." [Ibid., H, 3, 1043b1-4]. To this statement, it might be objected that Aristotle, in giving this example of a way in which a thing is identical to its essence

('soul' and 'to be soul'), is violating his own rule for the determination of an essence. He says: "...there is an essence only of those things whose formula is a definition. But we have a definition not where we have a word and a formula that are identical in meaning...but where there is a formula of something primary..." /Ibid., Z, 4, 1030a6-10/. On the face of it, 'soul' and 'to be soul' are precisely a word and a formula that are identical in meaning thus, 'to be soul' cannot be the definition of 'soul'. We may add further that Aristotle gives a 'real' definition of soul when he says: "...the soul is the first grade of actuality of a natural body having life potentially in it." /De Anima, II, 1, 412a29-30/.

Aristotle resolves these difficulties by reminding us of the general point that in the case of soul, the soul (as a form only) is identical to its essence (which is also a form); in the case of man, if we were to say that to be a man is to be a certain kind of soul only, then man would, for the same reasons, be identical to his essence. But man is not a particular kind of soul only, he is a composite of matter and form thus, man, in his concrete totality contains an element (matter) which is 'in addition to' the essence and so essence does not equal the concrete totality. It is in this sense that the concrete man is not equal to his essence.

To this notion, Aristotle adds that "...only the parts of the form are parts of the concept, and the concept is of a universal; for being a circle is the same as "the circle," as being a soul is the same as "the soul." But as to the concrete object, for example, this circle, that is, one of the individual circles /i.e. those of bronze or wood/, ...there is no definition of them; but it is denotatively or perceptually that they are known. And when they pass out of this known state, it is not clear whether they still are or are not; but always they are defined and known through the concept which expresses them generally, since matter is with regard to itself unknowable." /Meta., Z, 10, 1035b33-36a9 (Hope)/. Thus, insofar as the concrete individual contains a form that can be defined through a universal concept it can be known, but it cannot be known qua material.

β. In his discussion of the various ways in which things are said to be 'one' /Meta., I, 1, 1052a15-b1/, Aristotle enumerates four: 1) the 'one' which is said to be continuous by nature; 2) the 'one' which is said to be a natural whole, one extended thing, which has in itself the cause of its own movement. Other things are said to be 'one' if they are indivisible in thought or definition, e.g. 3) in number (individuals), or 4) in kind (form), i.e. that which gives substances unity

and indivisibility in knowledge and intelligibility. The 'one' is like 'being' in the sense that it is the widest predicate, but insofar as it is a 'measure', it belongs most strictly to quantity. Cf. p. 274.

APPENDIX

ON THE QUESTION OF THE AUTHENTICITY OF ARISTOTLE'S CATEGORIES.

In his article, "Sur l'authenticité des Catégories d'Aristote,"¹ Bertrand Dumoulin observes:

"Une saine méthode demande...de ne pas utiliser, dans les exposés de la pensée d'Aristote, les Catégories comme si leur authenticité ne faisait pas problème."²

The question of the authenticity of the Categories is one that has exercised several commentators for a variety of reasons. In the course of what follows, I shall refer to what I consider to be the principal arguments pro and contra in order to see what merit each view may have, if any, and to come to some conclusion regarding this question. To be sure, an appendix is not the place to indulge in freewheeling philosophical argument, so I shall confine my efforts to a summary of the various positions along with such personal observations as may be relevant.

In general, there are a variety of techniques that may be used either to question or to support the authenticity of an ancient text. One of these is philological, i.e. an examination of the syntax of the treatise in question and an analysis of the use of certain words coupled with a detailed knowledge of the state of development of the language at any given period. For example, if it can be determined that the literary style of the disputed treatise is significantly different from that of the admittedly genuine works of the author to whom it is attributed, then grounds for suspicion would certainly exist.

Similarly, if certain terms are used in the treatise, and it can be shown that these terms did not come into general use until a century or two after the treatise was allegedly written, then once again, we would be justified in viewing the disputed work with a jaundiced eye. As for the philological method, it is no doubt an excellent and valuable one, but since my own training does not lie in this direction, I am obliged to disqualify myself from any evaluation of the Categories along these lines.

Fortunately, there are other ways of approaching this question, and one of these is properly philosophical in that it touches the doctrinal content of the treatise as compared with others whose genuineness is not questioned. This is largely the method I have employed throughout this dissertation, and it is the one to which I shall confine myself in this appendix, although some historical considerations will necessarily enter the picture.

By way of preface to the principal discussion, I shall observe immediately that the Categories was almost universally endorsed as a genuine Aristotelian treatise in ancient times, a fact which is not insignificant, although as Ross says:

"The authenticity of this book has been denied. There are no clear references to it in admittedly genuine works of Aristotle. But it was accepted without question in antiquity, and commented on as a genuine work by a series of commentators beginning in the third century A.D. with Porphyry; indeed the evidence for its acceptance goes back to Andronicus (early first century B.C.). The arguments against it from the point of view of Aristotelian doctrine are not conclusive, and its grammar and style are thoroughly Aristotelian. The last six chapters, dealing with the so-called Post-

predicaments, stand on a somewhat different footing. They were suspected by Andronicus, and are foreign to the purpose of the book. But they may well be the work of Aristotle."³

That the ancient commentators were not greatly troubled by the question of the authenticity of the Categories is also attested to by Zeller: "...the ancient critics never doubted the genuineness of the extant book..."⁴ However, as Ross also observes, somebody must have doubted it because

"...several of the commentators devote themselves to refuting arguments against its genuineness - e.g. Philoponus 12.34-13.5, Simplicius 379.7-380.15, Olympiodorus 22.38-24.20. The arguments which they set themselves to meet - arguments derived from supposed contradictions between the Categories and certain works of Aristotle - are invariably weak, and the answers given by the commentators are convincing."⁵

Following the ancient period, the Categories continued merrily along without a stain on its character until it encountered a group of philologists in Nineteenth Century Germany.⁶ These scholars cast a suspicious eye on the little treatise, and such was the controversy aroused that in 1904, Isaak Husik deemed it necessary to spring to the defense.⁷ I shall allow Husik (writing in 1939) to tell, in his own words, what happened next:

"Thirty-four years ago I published a paper, "On the Categories of Aristotle," in the Philosophical Review. Like the case of the proverbial Irishman who desired to be buried in a Jewish cemetery because that was the last place the devil would look for an Irishman, so it seems that the Philosophical Review at that time was the last place where an Aristotelian scholar would look for a literary-historical arti-

cle on the Categories of Aristotle.
 And so the article was stillborn. No
 European student of Aristotle knew
 about it and it did not find its way
 into the bibliography of the subject."⁸

In an afterword to Husik's 1939 article, Ross says that

"Professor Husik has done a service to
 students of Aristotle by reminding them
 of his earlier article, which, buried in
 the decent obscurity of a learned jour-
 nal, had escaped my attention, as well
 as that of many other students."⁹

Husik's 1904 article is a long and careful reply to the
 German philologists, and leans heavily upon texts drawn from
 the ancient commentators. In his afterword to Husik's 1939
 article, Ross says that: "His [Husik's] conclusion seems to
 me sound, that the Categories is by Aristotle, and is an early
 work belonging to the same period as the Topics."¹⁰ We may
 recall at this point that in his book Aristotle, first publi-
 shed in 1923, Ross had entertained certain reservations con-
 cerning the so-called Post-paedicamenta, although he had con-
 ceded in the end that "...they may well be the work of Aris-
 totle."¹¹ By 1939, however, under the influence of Husik,
 Ross changed his opinion. He thanks Husik for having removed
 his doubts concerning chapters 10-13,¹² and says also that
 "...even if we treat chapters 14 and 15 as not belonging pro-
 perly to the Categories, we need not hesitate to ascribe them
 to Aristotle."¹³ This opinion is fairly close to that of Zeller
 who believes that the Organon in general, including the Catego-
ries, was not established by Aristotle in its present form, al-
 though he is responsible for its contents.¹⁴ For his own part,
 Ackrill agrees with Ross that chapters 10-15 provide no reason
 for any doubt as to their authenticity, although Ackrill belie-
 ves that they were not part of the original treatise, having

been tacked on later by an editor.¹⁵

But, if Husik had been able to deal with the German commentators in the Nineteenth Century, nothing could have prepared him for an encounter with another German writing in the Twentieth. I refer, of course, to Werner Jaeger.

The debate in the earlier part of the present century concerning the authenticity of the Categories received a strange twist with the publication of Jaeger's major work. In Richard Robinson's translation of that book, we find an astounding footnote:

"The Categories cannot be an early work because the Lyceum is given as an example of the category of place; and this undoubtedly refers to the school, which also provided several other examples of logical conceptions. One need only think of Coriscus; the point of the frequent use of his name as an example becomes clear when one imagines the lectures in Assos, at which he was present. In the Categories Aristotle's doctrine of first and second substance is made nominalistic; this cannot be removed or explained away; and the very form is un-Aristotelian. The importance of these slight and unintentional verbal indications must not be underestimated. Moreover, the author assumes that the doctrine of categories is already known; he takes up only a few questions. All this, however, does not prevent us from seeing that most of the details are Aristotelian in content..."¹⁶

Taking Jaeger's points in the order made, the first concerns the Lyceum given as an example of the category of place. Of this example, Jaeger says that "...this undoubtedly refers to the school..."¹⁷ Does it? I find no evidence whatever to suggest that this is so. In the Categories, the examples given are the Lyceum and the market-place.¹⁸ Jaeger is forgetting

that, long before the time of Aristotle, the Lyceum was a well-known landmark in Athens, famous as a haunt of Socrates, and Plato refers to it on occasion. It is, in fact, the setting for the dialogue Euthydemus.¹⁹ As examples, Aristotle might just as easily have chosen the Academy and the Acropolis. So, taken in itself, the occurrence of the Lyceum in the Categories proves nothing.

The second point concerns the invocation of the name Coriscus. On the whole, I find this example unnecessarily confusing and perhaps even misleading. Jaeger needs to be read carefully here lest it appear that he thinks that Coriscus has something to do with the Categories. In other words, that Coriscus is used as an example of something in the same way as the Lyceum. But Coriscus makes his début in the corpus at Posterior Analytics, I, 24, 85a25. From Jaeger's perspective, the whole point appears to be that Coriscus is used in the writings which followed the sojourn at Assos, and also following the period of Aristotle's tutelage of Alexander, thus during the so-called second Athenian period. This is plausible, at least as far as Coriscus goes. Aristotle may indeed be recalling the lectures at Assos at which Coriscus was present. But the Lyceum is not on the same footing at all. There is no evidence to indicate that the Lyceum mentioned in the Categories is Aristotle's rather than the one Socrates frequented.

The third, and by far the most serious, of Jaeger's points is that the doctrine of primary and secondary substance is made nominalistic in the Categories. Speaking of this extraordinary claim, Dumoulin says:

"Si on prend à la lettre l'expression de Jaeger, dans la proposition "Socrate est un homme", les Catégories voient en Socrate la substance première et dans homme

la substance seconde, alors que dans la perspective d'Aristote, homme serait au contraire la substance première, et Socrate la substance seconde!"²⁰

It is patently inconceivable that Aristotle's usual view could be that secondary substances (i.e. species and genera) could be primary substances, and that in the Categories, the meanings of the terms 'primary' and 'secondary substance' have been inverted. For one thing, Aristotle, in the Categories, makes it abundantly clear that what he understands by the term 'primary substance' is the concrete-existent particular 'this', i.e. the individual man, or the individual horse.²¹ Species and genera are called substances in a secondary sense.²² There is no evidence that Aristotle argues to the contrary in any other work. Further, it makes no sense to talk as though Aristotle holds to a doctrine of secondary substance apart from the Categories because the term does not appear anywhere else.²³ One speculates with considerable interest why Jaeger could have thought such a thing, and yet, think it he did. In the original German edition of 1923 (second edition, 1955), Jaeger says:

"Die nominalistische Umkehrung der aristotelischen Lehre von der ersten und zweiten οὐσία in der Kategorienschrift lässt sich nicht wegräumen oder-deuten, auch die Form ist unaristotelisch."²⁴

In the above passage, 'Umkehrung' may be translated as an 'upset', a 'reversal', or an 'inversion', thus Dumoulin is quite right in saying that Jaeger believes the Categories to contain "une inversion nominaliste".²⁵ This particular phrase is very much at odds with Richard Robinson's famous translation of Jaeger. In the relevant passage quoted above,²⁶ Robinson omits the Greek οὐσία and merely says: "In the Categories Aristotle's doctrine of first and second substance is made nominalistic..."²⁷ There is no mention of an inversion. In the trans-

lation from German to English, the notion of 'Umkehrung' disappears. In consequence, the reader of Robinson's translation has no inkling of the seriousness of what Jaeger actually said. However, it is beyond the scope of this appendix to cite all of the places where Aristotle holds that what he understands by the term 'primary substance' is the concrete individual, and that nowhere are species and genera given this designation. Jaeger appears to hold the opposite view, though on what grounds he fails to say. It is, or rather, was, up to Jaeger to provide textual evidence for this strange opinion, and he did not do so. Perhaps the best explanation is simply that the view which Jaeger attributes to Aristotle was never in fact held by him.

Elsewhere in the famous footnote, Jaeger warns his reader not to underestimate the importance of "...these slight and unintentional verbal indications..."²⁸ If the general effect of these 'slight and unintentional verbal indications' is to convulse the traditional understanding of the Aristotelian doctrine of substance, then perhaps these 'verbal indications' can hardly have been so 'slight'. I have already commented on the problem of the 'nominalistic inversion', so I shall only say that Jaeger is proceeding on the basis of 'facts' not in evidence, and that in consequence, any conclusions drawn from them must be unacceptable.

Finally, Jaeger claims that the author of the Categories "...assumes that the doctrine of the categories is already known..."²⁹ Here again is a totally unwarranted statement. What, in the Categories, could be interpreted as the author's belief that his subject is already known?

The case of Jaeger is instructive, and when discussing him, we must be aware that we are talking about the author of one of the most influential books about Aristotle in this century, in short, a man whose lightest word is taken by many as authorita-

tive. But even a cursory examination of his views on the Cate-
gories has shown them to be less than scientific. He tosses
off a series of bombshells seemingly without regard for the
consequences. In conclusion, I will observe only that if some
philosophers have formed their opinions of Aristotle's Cate-
gories as a result of too strict an adherence to the authority
of Jaeger, then they would do well to revise their views. As
L. M. de Rijk accurately notes: "The objections of W. Jaeger...
are shallow and pointless."³⁰

Turning from Jaeger to Eugène Dupréel, we shall see that
the arguments of the latter are only slightly more meritorious
than are those of the former for all that they are equally sur-
prising. In general, proponents of the authenticity of the
Categories consider it to be an early work given its overall
stylistic and doctrinal immaturity when compared, for example,
with the Metaphysics. But Dupréel does not agree. On the con-
trary, he asserts that the Categories is not an early develop-
ment of Aristotle's thought, but rather the expression of a
mature Aristotelianism, written by someone who did not under-
stand Aristotle. He says:

"Le système métaphysique du Traité est
différent de l'aristotélisme vrai; il
ne saurait être tenu pour original ni
pour un état antérieur de la doctrine
d'Aristote et il ne s'explique que com-
me une expression de cette doctrine im-
parfaitement connue et mal comprise."³¹

Dupréel believes that he has found an opposition between the
metaphysical system of the Categories and what he calls 'l'aris-
totélisme vrai'. In his favour, it must at least be granted
that he sees the treatise on categories as containing a meta-
physical, as opposed to a logical, system. For the rest, how-
ever, he attempts to defend a number of highly controversial
opinions. One such flows consequentially from his assertion

that the Categories does not pre-date the Metaphysics. The conclusion would appear to be that the Categories was written near the time of the composition of the central books of the Metaphysics, or even later, perhaps following the death of Aristotle. Since Dupréel assumes that the Categories was a late expression of a mature doctrine, he finds it astounding that the author should be ignorant of a major tenet of Aristotelianism:

"L'auteur du Traité ne connaît pas la théorie de la matière et de la forme, sans laquelle le système d'Aristote est comme désarticulé, mais l'expression de $\mu\omega\tau\eta\ \omicron\upsilon\sigma\iota\alpha$ est venue jusqu'à lui; or les mots lui sont précieux, car son fait est bien plus d'énumérer et de décrire que d'expliquer, il est pédagogue plutôt que philosophe."³²

Now, if Dupréel is right in assuming that the doctrine of substance in the Metaphysics is prior to that of the Categories, then the author of the treatise has no excuse for being unaware of the theory of matter and form. But I see no reason whatever for asserting that the Metaphysics is prior to the Categories. Even the most superficial comparison of the two works would make it clear that doctrinally and stylistically, the Categories is by far the more primitive, and the absence of the theory of matter and form can easily be explained by saying that when Aristotle wrote the Categories, the theory had not yet occurred to him. But an even more telling argument can be brought against Dupréel as follows: If Aristotle is not the author of the Categories, that in fact, the treatise was written by an amateur Aristotelian possibly after the death of the Stagirite, then Dupréel has some brisk explaining to do. For on his showing, somebody wrote the work in question following the composition of the Metaphysics. This unknown person was

ignorant of the basic doctrines of Aristotelianism and misunderstood the ones he did know of, and despite these obstacles, he wrote a book in the Aristotelian style that was accepted as genuine for over two thousand years! If any credence can be given to this view, then it would raise very serious questions concerning the competence of all scholars, ancient and modern, who have declared themselves convinced of the authenticity of the treatise.

On another level, merely to suggest that there are differences between the doctrines of the Categories and the Metaphysics is by no means to prove that the Categories is inauthentic. The authenticity of any particular treatise does not depend on the identity of its doctrinal content with that of every other treatise. As we saw in Chapter III, the heterogeneity of the theory of substance is not easy to reconcile. In some places, Aristotle speaks of substance as the individual concrete 'this', in others he treats it as the subject of logical predications, in still others, as essence. It appears that the governing methodological consideration in these various approaches is that he calls 'substance' different things in different disciplines according to the particular problem under consideration. If we assume that the doctrine of substance, as laid down in the Metaphysics, is the only authentic one, then we would have grounds for suspecting not only the Categories, but every other treatise where the notion of οὐσία is not understood as τὸ τί ἦν εἶναι. In the end, Aristotle reconciles the Categories and the Metaphysics by asserting that the particular thing and its essence are one and the same.³³

Before turning to the objections of Suzanne Mansion to the notion of secondary substance, I shall comment first on the views of Augustin Mansion, who makes several important observations:

"...il n'y a pas seulement la rédaction verbeuse, si différente de la manière concise et prenante d'Aristote dans ses écrits didactiques; l'analyse du contenu doctrinal et de la terminologie technique propres au traité ont fourni à la critique des arguments en sens opposés, les uns tendant à faire voir dans les Catégories une oeuvre datant de la première période de l'activité d'Aristote, tandis que d'autres suggèrent plutôt de reporter l'ouvrage en tout ou en partie après la mort du Stagirite; mais les uns comme les autres ont pour résultat de détacher cet écrit de l'ensemble de l'Organon, ou de moins de lui retirer la fonction qu'il aurait à y remplir [i.e. to be a theory of terms]."³⁴

In fact, A. Mansion believes that if the Categories belongs to logic at all, then we would hardly guess it from its doctrinal content. As he says: "...le petit traité des Catégories par son contenu se prête bien mal...à la fonction qu'on lui a assignée dans l'ensemble [i.e. the Organon]."³⁵ Indeed, he goes further:

"H. MAIER, auquel on doit l'examen le plus approfondi de l'ensemble de la logique aristotélicienne, basé sur une analyse minutieuse des traités de l'Organon, reconnaît de façon explicite (Die Syllogistik des Aristoteles, II, 2, (Tübingue, 1900), p. 372, n. 1) que, rigoureusement parlant, les Catégories ne rentrent pas dans l'Organon; l'exposé qu'on y trouve, se rattache plutôt à la métaphysique."³⁶

In general, I support this view, as do Ibn Sînâ³⁷ and Zeller.³⁸ What A. Mansion appears to find troubling is not that the Categories should be more metaphysical than logical, but that there are not sufficient indications in the text to support a clear-cut reading one way or the other. In particular,

critics have been able to find, in the text, passages that would allow them to argue contradictory positions with equal ease, or so it would appear. But A. Mansion does make a point with which I do not agree. Speaking of the literary style, he states that compared with the conciseness found in Aristotle's didactic writings, the style of the Categories is verbose. The contrary could easily be argued. For example, chapters 9 through 15 are sometimes terse to the point of obscurity, moreover, any treatise which lays down the foundations for the doctrine of substance, the theory of categories, and elaborates a distinction between predication and inherence in only fifteen pages of the Bekker edition can hardly be called verbose.

In a later article published several years after his book, A. Mansion hardens his position against the authenticity of the Categories and takes his cue from a point of terminology. In the Categories, πρώτη οὐσία is used to designate the individual man or horse,³⁹ whereas in the Metaphysics, this designation seems to belong to the form, or ψυχή.⁴⁰ Mansion concludes:

"Cette terminologie est différente de celle qui est mise en avant dans Catég., 5, 2all-19, et les doctrines sont, de part et d'autre, nettement divergentes. Cela seul suffirait à mettre en suspicion l'authenticité du petit traité des Catégoriques, dont l'exposé a imprégné - et faussé - toute la tradition péripatéticienne et dont les données sont reproduites sans critique dans la grande majorité des manuels."⁴¹

Like Jaeger, A. Mansion also drops his bombshell in a footnote, i.e. that the doctrine of the Categories has falsified the entire Peripatetic tradition. Surely this is too strong. Throughout this dissertation I have attempted to show that the doc-

trine of the Categories is by no means radically incompatible with the other works in the corpus. In any event, the views of Augustin Mansion seem to have influenced the opinions of his equally celebrated niece:

"...ce qu'il est surtout intéressant de relever ici, c'est que la substance est définie autrement dans les Catégories que dans le reste des écrits du philosophe..."⁴²

While A. Mansion says that

"...la fameuse substance seconde des Catégories, étant caractérisée comme un universel au regard de la substance première, ne peut en aucune façon être dite substance d'après la doctrine motivée de Métaph., Z, 13."⁴³

S. Mansion says:

"La définition de la substance selon les Catégories est...nettement autre que celle de la Métaphysique et des Analytiques Postérieurs. L'auteur de l'opuscule...distingue deux "degrés de substantialité" par sa division en substance première et seconde. Cette dichotomie ne se retrouve nulle part ailleurs et rend un son fort peu Aristotélicien. La substance seconde est un universel, puisqu'elle est espèce ou genre et qu'elle est prédicat de la substance première. Or, le Stagirite insiste beaucoup dans la Métaphysique sur la thèse que l'universel ne peut être substance (Z, 13).

Ces divergences doctrinales laissent la voie ouverte à plusieurs hypothèses: le traité des Catégories doit-il être tenu pour un ouvrage de jeunesse d'Aristote? A-t-il été écrit par un Académicien de cette époque? Il paraît sûr en tout cas que l'opuscule ne reflète pas la pensée du Stagirite arrivée à sa maturité et cela nous justifie d'avoir négligé le contenu du traité pour notre exposé de la substance aristotélicienne."⁴⁴

As we have seen, both Mansions are unhappy with the doctrine of secondary substance as this is expounded in the Categories, and it is this theory in particular that bears a major share of the responsibility for the controversy now under discussion. However, several observations are now in order that may help to clarify the situation. In the first place, I refer the reader to my previous discussion, in Chapter IV, of the nature of the categories. In the section devoted to the category as predicate,⁴⁵ it was concluded, for reasons unnecessary to repeat here, that it does not seem to be correct to say that the Categories was intended by Aristotle to be primarily logical in nature. In fact, it is arguably more a metaphysical treatise than a logical one as Ibn Sīnā,⁴⁶ Zeller,⁴⁷ and Maier⁴⁸ seem to think. With this in mind, anyone who ties the question of authenticity to the alleged logical function of the Categories in the Organon would, if the relation were challenged, feel constrained to deny the authenticity of the treatise. But as also seen in Chapter IV,⁴⁹ we may deny that logic is the primary function of the Categories without denying its logical application. This consideration alone is sufficient to allow the treatise to retain its place in the Organon. The question we must now face is whether the doctrine of secondary substance is to be taken as primarily a logical or metaphysical development.

Since I have argued that the Categories is more metaphysical than logical in content, let us see what can be done with the assumption that secondary substance has more to do with ontology. In the Categories, Aristotle says of species and genera that they are substances in a secondary sense.⁵⁰ In the relevant passage,⁵¹ Aristotle discusses his reasons for calling species and genera substances, albeit secondary. What is striking, not only about this passage but the entire treatise, is

that while secondary substances are commonly thought to be universals, Aristotle never says that they are. In fact, the word καθόλου never appears in the Categories at all. Καθόλου makes its first appearance in the corpus at De Interpretatione, 7, 17a38. If Aristotle had thought that what he calls secondary substances in the Categories were universals (properly so called), then he might have been expected to say so, but he does not. He is quite clear on the point that, from the perspective of the Categories, species and genera are not universals, but secondary substances. The denial in Metaphysics, 2, 13, that universals can be substances would thus seem to be in line with what appears to be implicit in the Categories, and on this interpretation, there is no longer a conflict between the Metaphysics and the Categories. But what could Aristotle have meant by calling species and genera substances? In the passage referred to,⁵² he says:

"...it is because the primary substances are subjects for all the other things and all the other things are predicated of them or are in them, that they are called substances most of all. But as the primary substances stand to the other things, so the species stands to the genus: the species is a subject for the genus (for the genera are predicated of the species but the species are not predicated reciprocally of the genera). Hence for this reason too the species is more a substance than the genus."⁵³

On our ontological reading of this passage, Aristotle stresses that there is an analogy between the way in which 'all the other things' (i.e. secondary substances and the accidents of substance) are either 'predicated of', or 'present in', primary substances, and the way in which a genus is 'predicated of' its species. A primary substance is a subject for predications and inhereents, and a species is a subject for predica-

tions. Both are seen to be subjects, and on an ontological reading of the Categories, nothing can be a subject of whatever kind without being an οὐσία of some kind. These two indications (i.e. the absence of the term καθόλου and the fact that species is related to genus in a manner similar to the relation between primary and secondary substance), would tend to reinforce our suspicion that Aristotle is considering ontological rather than logical relationships. In other words, he is not talking about universals logically predicated of subjects, but rather about genera and species ontologically distributed among their members.^α It would be the height of irony if, by this particular formulation of the doctrine, Aristotle caused the very controversy he was trying to avoid.

But as for there being any doctrine of secondary substance at all, the motives behind it are unclear, although certain conjectures can be made. If, for the moment, we assume that the Categories is an early work (possibly one of the earliest), then we would be justified in seeking some vestige of Aristotle's early Platonism, and I believe that the doctrine of secondary substance may be just such a vestige. In Chapter I of this dissertation, I discussed the Platonic antecedents to the Aristotelian theory of predication. In that chapter it was seen that, for Plato, any object is what it is, to whatever extent that it is, because the Intelligible Form of it is either 'present in' it, or it 'participates' in the Intelligible Form. But however these relations may be conceived or defined, the fact remains that the Intelligible Form, which is the ground of the being and the intelligibility of the phenomenal world is, nevertheless, ideal and transcendent. Aristotle rejected this view and sought to ground the being and intelligibility of things in the things themselves. At all events, Aristotle will not permit the ground of being and intelli-

bility to exist apart. To take the example of a dog, Plato would say that this thing is what it is (or at least appears to be what it is) because the the Form of Dog is 'present in' it, or it 'participates' in the Form of Dog. The Form in question always remains separate from its particular instances and would continue to exist were every dog on earth to be destroyed. Aristotle will have none of this. What it is that makes the dog be what it is is its essence which is transmitted to it by its species. In one sense the species can exist separately from any particular dog for the dog could die without the species being affected by this event. In other words, although the concrete instantiations of the species would be numerically reduced by one, the species itself would not be formally affected. On one level, then, the species can exist apart from any particular member of it, but it must have some members. If a type of plague were suddenly to break out among the canine population, and every single dog in the world perished, then the species too would be annihilated.

Aristotle's attempt to ground the being and intelligibility of things in the things themselves may thus be seen as a major step in his rejection of Plato's ideal and transcendent universals. The Aristotle of the Categories would ground the being and intelligibility of a dog in the species 'dog' and the genus 'animal', and in so doing, would take the notion of dog out of the heaven of ideal transcendence and make it immanent and concrete, capable of being conceived apart from its particulars, but incapable of existing apart from them. It is for these reasons that I believe that Aristotle deliberately avoids calling species and genera καθόλου in the Categories. Such notions have an obvious application in epistemology and logic, but none in ontology. Thus, in the Categories, species and genera, and especially species, are called secondary sub-

stances, because in a concrete way, the species exists, and is a subject for predications, and this is precisely what it has in common with primary substance.

On the basis of these considerations, we are led to suspect that the Categories is a very early work, and that Aristotle is still struggling against a vestigial Platonism the result of which is the doctrine of secondary substance. It is no argument against the authenticity of the treatise to assert that the doctrine does not reappear in any other work since, being the work of a débutant, it could be easily argued that Aristotle soon surpassed his early attempt at an explanation of the ontological structure of the natural world. Moreover to base a charge of inauthenticity solely on perceived doctrinal inconsistencies is insufficient since it does not take into account the undoubted evolution of Aristotle's thought. To take a somewhat analogous case, were it not for the fact that his name is on the title pages, what doctrinal grounds would we have for suspecting that the philosophy produced in the pre-Critical period was, in fact, written by Kant? A similar doctrinal divergence exists between the 'early' and the 'late' Wittgenstein. There is no reason why Aristotle should be thought to be immune from a comparable type of development.

In conclusion, I believe that the arguments brought against the authenticity of the Categories fail to achieve their objective, and on balance, we are obliged to fall back on two millennia of ancient and modern criticism which is tolerably unanimous in defense of the genuineness of this controversial little treatise. As G. E. R. Lloyd says:

"...scholars no longer generally assume that such works as the Categories and the Eudemian Ethics should be treated as spurious, although there remain dis-

agreements about whether they are more likely to be 'early' or 'late' productions."⁵⁴

As of this writing, I see no reason to challenge this opinion.⁵⁵

NOTES TO APPENDIX

1. in Concepts et catégories dans la pensée antique, (Pierre Aubenque, ed.), (Paris: Vrin, 1980), pp. 23-32.
2. Ibid., p. 32.
3. Ross, Aristotle, pp. 9-10.
4. Zeller, Aristotle and Earlier Peripatetics, I, p. 65.
5. Ross, Afterword to Husik's article, The Journal of Philosophy, 36(1939), p. 431.
6. Be it noted, however, that the Categories was not the only treatise to run afoul of the Germans. At that time, the very model of scientific procedure in the Classics and the Humanities was to doubt the authenticity of virtually anything to emerge from antiquity. In fact, it had become a cliché in European universities to doubt not only the authenticity of Aristotle's writings, but everyone else's too. As is commonly known, the most (in)famous case is that of Homer whose very existence was doubted for decades. (See, The Iliad of Homer, (Translated with an Introduction by Richmond Lattimore), (Chicago: University of Chicago Press, 1951), p. 29.) The general debate over the authenticity of the works of ancient Greece roughly coincided with the first appearance of the writings of Theodor Mommsen, and the contagion soon spread from studies of the Greek theatre to philosophy. Given this intellectual climate, we need be neither surprised nor dismayed by German doubts concerning the authenticity of the Categories since it is not the case that the Categories alone was singled out for such treatment.
7. "On the Categories of Aristotle," Philosophical Review, 13(1904), pp. 514-528.
8. Isaak Husik, "The Authenticity of Aristotle's Categories," The Journal of Philosophy, 36(1939), pp. 427-28.
9. Ross, art. cit., p. 431.
10. Ibid., p. 432.

11. See note 3, above.
12. Ross, art. cit., p. 433.
13. Ibid.
14. Zeller, Outlines of the History of Greek Philosophy, p. 162.
15. Ackrill, op. cit., pp. 69-70.
16. Jaeger, Aristotle..., p. 46, n. 3.
17. Ibid.
18. Cat., 4, 2a1.
19. Cf. Euthydemus, 271A. Other references to the Lyceum may be found at Euthyphro, 2A; Lysis, 203A; and Symposium, 223D.
20. Dumoulin, art. cit., p. 23.
21. Cat., 5, 2a13.
22. Cf. Cat., 5, 2a11-18.
23. I shall pursue the significance of the term δεύτεραι οὐσίαι later.
24. Werner Jaeger, Aristoteles, Grundlegung einer Geschichte Entwicklung, (Berlin: Weidmannsche Buchhandlung, 1955), p. 45, n. 1.
25. Dumoulin, art. cit., p. 23.
26. See note 16, above.
27. Ibid.
28. Ibid.
29. Ibid.
30. L. M. de Rijk, "The Authenticity of Aristotle's Categories," Mnemosyne, 4 Series, 4 (1951), p. 140.
31. E. Dupréel, "Aristote et le Traité des Catégories," Archiv für Geschichte der Philosophie, 22 (1909), p. 241.

32. Ibid., p. 248.
33. Meta., 2, 6, 1031b18.
34. Augustin Mansion, Introduction à la Physique Aristotélicienne, (Louvain-Paris: Editions de l'institut supérieur de philosophie-Librairie philosophique J. Vrin, 1946), pp. 9-10.
35. Ibid., p. 9.
36. Ibid., n. 9.
37. See Chapter IV, note 124.
38. Ibid., note 3.
39. Cat., 5, 2a13.
40. Cf. Meta., 2, 7, 1032b1-2; 11, 1037a5, 28-29..
41. A. Mansion, "L'immortalité de l'âme et de l'intellect d'après Aristote," Revue Philosophique de Louvain, 51(1953), p. 454, n. 14.
42. Suzanne Mansion, "La première doctrine de la substance: la substance selon Aristote," Revue Philosophique de Louvain, 44(1946), p. 367.
43. A. Mansion, "Travaux d'ensemble sur Aristote, son oeuvre et sa philosophie," Revue Philosophique de Louvain, 57(1959), p. 54.
44. S. Mansion, Le jugement d'existence chez Aristote, (Louvain: Editions de l'institut supérieur de philosophie, 1976), p. 233, n. 61 (continued from p. 232).
45. Cf. Chapter IV, pp. 150-59.
46. See note 37, above.
47. See note 38, above.
48. See note 36, above.
49. Cf. p. 157 in particular.
50. Cat., 5, 2a13-16.

51: Cat., 5, 2b16-22; Ackrill, op. cit., p. 7. I have quoted both the Greek original and Ackrill's translation above. See Chapter III, pp. 93-94.

52. See note 51, above.

53. Ibid.

54. G. E. R. Lloyd, Aristotle: The Growth and Structure of His Thought, (Cambridge: Cambridge University Press, 1980), p. 16.

55. For a detailed discussion and defense of the authenticity of the Categories which includes a lengthy reply to the objections of Suzanne Mansion, see de Rijk, art. cit., pp. 141-149.

α. What I am saying here is that e.g., the statement 'Socrates is a man' is a judgment, expressed in language, which is based upon the mental conjunction of the universal notion of 'man' and the image of this particular man ('Socrates'). This is what I mean by the predication of a universal of a subject. But the mental conjunction of concept and image arises from an extra-mental condition viz. that Socrates belongs to the species 'man' and this relationship is what I mean by the 'ontological distribution' of genera and species among their members. Thus when I say 'Socrates is a man' I am not speaking solely of mental constructs, but rather I am stating that in my mind there is a correlation between a particular image and a universal concept. But this relation is not isolated from the external ontological tie which forms the basis for the judgment.

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A PROPOSAL TO EXTEND THE METHODOLOGICAL

FUNCTION OF ARISTOTLE'S CATEGORIES

DOCTORAL DISSERTATION OF

GEOFFREY LUSIGNAN

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RESUME

This thesis deals with the peculiar problems posed by what are now called 'categories' in Aristotle's philosophy. The secondary literature bristles with claims and counter-claims concerning the nature of the categories. Are they the highest genera of 'being' studied by ontology, or are they the highest classes of 'predicates' in logic? Neither position lacks adherents, but it seems that the question: Are the categories 'things' or 'predicates'? is a false one.

To confront this situation, it seems that what is needed is a perspective from which to view the categories that would validate both perceived functions. In other words, is there some middle ground between 'ontology' and 'logic', some particular perspective that would grant to both ontology and logic the perfect right to call themselves categorial systems? The search for this 'middle ground' is the dominant motive behind the writing of this thesis. It is proposed that the methodological function of the categories, as principles of explanation in ontology and logic, be extended to include 'epistemology'.

It is the contention of this thesis that the 'ontological categories' are intimately involved in the very structure of the concrete substance which is the highest manifestation of 'being'. Further, that the concrete object is the starting point of a process of induction that leads ultimately to the

highest universals, the so-called epistemological categories. Finally, it is suggested that the conceptual content of the epistemological categories is what gives the logical categories their significance.

In the final analysis, it is proposed that the general theory of categories involves the identification of three commensurable categorial systems which, together, provide a basis for the explanation of how the 'being' and the 'intelligibility' of 'the real' are grounded.