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ON ARISTOTLE'S PRINCIPLE OF CONTRADICTION

ITS ONTOLOGICAL FOUNDATIONS AND PLATONIC ANTECEDENTS

*Τὸν ἔλεγχον λεκτέον ἄρα ὥς μεγίστη
καὶ κυριωτάτη τῶν καθάρσεων ἐστὶ.*

Πλάτων, *Σοφιστής* 230 d.

1.

According to Aristotle, it belongs to the philosopher to study the ἀρχαὶ presupposed in all special inquiries. It falls within the philosopher's domain to examine thus the most certain principle, the law of contradiction. In proceeding with this basic task, the philosopher can employ only dialectic, that is, he can only unfold and discuss the consequences that follow the denial of this fundamental ἀρχή. In recommending and developing this approach, Aristotle was following and furthering the kind of reasoning Plato originated in the *Theaetetus*. Both Plato and Aristotle argued against the theories that reality consists of nothing but things in constant change. As we shall see, such views, since they did not allow for states of constancy and formal determinants, led inescapably to the denial of the law of contradiction (*Theaetetus* 181 c-183 b). The relativism of Protagoras, resting as it did on a version of extreme Heracleitianism, denied the possibility of false judgments. It is a position that both Plato and Aristotle sought to discredit although on different epistemological and ontological grounds. This point will be discussed later in the paper. What is of central importance here is the fact that a theory which makes change ultimate not only denies all notions of permanence but cannot be defended as a theory at all since it questions the grounds of all intelligibility of existence, change, and even discourse itself.

It is important for the purposes of our discussion to note that when Plato proposed the Forms as the ὄντα in the fullest meaning of permanent and changeless being, he did not mean to say that the sensible world was either unreal or totally unknowable. It is correct Platonic doctrine to say that we do in fact talk significantly about the sensible world and that in conse-

quence we do make true as well as false judgments about sensible objects. The veracity or lack of veracity of such judgments calls for serious investigations, and this is a problem for the philosopher to answer. However, no satisfactory solution can be reached if the sensible world is characterized either as unreal or if the power of sensation is taken to be totally illusory. The same holds if the world is seen as limited only to what is perceived through the senses or if the power of sensation is viewed as totally self-validating. Plato's own investigations, as the dialogues indicated, were carried out in an effort to resolve the absurdities and difficulties created by the theories of the leading philosophers of the sixth and fifth centuries, especially as these polarized around the more extreme positions of Parmenides and Heracleitus. But what brought the issues into focus were the challenging proposals worked out by the leading sophists who spared no effort to make their solutions applicable to ethics and politics.

When Protagoras made the bold claim that not only sense perception is exclusively fundamental to making any judgment his thesis carried with it the even more radical claim that all judgments are true and only true. Not only did he limit the scope of the world to the realm of the sensible, in total opposition to the Parmenidean view which denied veracity to the «way of opinion», but he cast a heavy shadow of doubt on the «way of reason» and its cognitive object, since it is not possible for the One to be perceived. Assuming as he did that the individual man is the sole agent to decide the truth claims of his opinions, it is necessarily the case that what seems real and true to him is so. No disagreements in judgments held by two individuals can render either person's belief false, for neither disputant can legitimate grounds for calling the other side wrong or false. Clearly, then, this type of epistemological relativism, is committed to the view that all judgments are necessarily true just as it is tied to a position which limits knowledge to a sensible world in a state of constant change. Plato, regardless of his deep affinities with the Parmenidean insistence on the primacy of reason and the quest for permanent being, found himself in agreement with the Protagorean acceptance of the sensible world. Again, while he agreed with the sophist that it is not sound doctrine to reject the sensible world because it does not afford true judgments of warranted permanence, he took issue with the sophistic position which limited the world to the sensible domain, particularly as one of total flux. But the *media via* called for a fresh approach to the nature of the sensible as well as a critical examination of the credentials of the judgments about sensed events. In pursuing this new course in the *Theaetetus*, Plato made certain discoveries that were to help Aristotle lay the foundations for his

ontological approach to the principle of contradiction in *Metaphysics* Γ.

The assessment of the details of Plato's doctrines as they relate to our main topic requires separate treatment. We can deal in this paper only with those aspects that are of direct relevance to the theme under exploration. This we shall do in the next section. The main purpose of this paper is to exhibit the basic features of Aristotle's conception of the ontological basis of the principle of contradiction, its Platonic antecedents and his refutation of certain views which reject the principle.

2.

In Plato's philosophy the theory of Forms is necessary for a complete account of sensible existence. Without this theory no satisfactory explanation of the possibility of knowledge, whatever its status, of the sensible world can be given. Unless we assume the Forms as being independent of change, the flux which characterizes the sensible domain will remain indeterminate and therefore beyond the grasp of cognition. Although the sensible object has change as its main feature, it also has constancy, derived from the Forms and owing it to their existence¹.

In the *Theaetetus* we are shown what consequences follow if we seriously entertain the hypothesis that all types of existence are reduced to instances of change. Plato argues that such a theory of absolute change : (a) not only rules out the possibility of quality and of sensation, but it necessarily goes against its own vital thesis that all judgments are true, on the ground that by not providing for referential constancy any true judgment becomes also a false judgment; (b) it cannot in any conceivable way introduce any notion of permanence without falsifying its central thesis; (c) by maintaining such a position about change it not only leads to the denial of the principle of contradiction, but also makes in retrospect any initial premises meaningless; (d) by resolving all sensible reality into one of absolute change, the hypothesis has to admit the existence of unchanging beings for otherwise it cannot hold the view that everything is in process anymore than it can say that everything is at rest. Since these are interrelated issues they will be examined together in the remarks which follow.

It is not germane to our purposes to dwell on the diverse passages in the dialogues where Plato comes to grips with ethical, epistemological and metaphysical difficulties of the extreme version of relativism in theories of sense perception and the attendant ontologies of the sensible world. We

1. *Phaedo* 78 d-79 a and *Symposium* 207, *Philebus* 59 a-b. *Timaeus* 27 d-28 a.

need only concentrate on the implications these theories have for the truthfulness and applicability of the principle of contradiction to the extent that Plato was committed to the defense of the principle. First, we find in Plato a clear recognition of the problem relativism must face : the obliteration of differences in quality which necessarily follows if judgments about sensible objects claiming to attribute determinate properties and their contraries to an object are all indiscriminately true. The result will be that a given object is no more soft than it is hard, heavy than it is light, and the like. The attribution of contrary or contradictory properties to an object cancels the identity of the object. We read in *Theaetetus* 152 d :

...Indeed the doctrine (Protagoras') is a remarkable one. It declares that nothing is one thing just by itself, nor can you rightly call it by some definite name, nor even say it is of any definite sort. On the contrary, if you call it «large», it will be found to be also small, if «heavy», to be also light, and so on all through, because nothing is one thing or some thing or of any definite sort. All the things we are pleased to say «are», really are in process of becoming, as a result of movement and change and of blending one with another. We are wrong to speak of them as «being», for none of them ever is; they are always becoming. In this matter let us take it that with the exception of Parmenides, the whole series of philosophers agree. . .²

The criticism is carried a step further. Not only does the identity of the sensible objects vanish, but on Heracleitean grounds the collapsing of opposites carries with it the rejection of any difference between seeing and not-seeing, and in general, perception and not-perception :

*[Seeing] has no right to be called seeing, any more than not-seeing, nor is any other perception entitled to be called perception rather than not-perception, if everything is changing in every kind of way. . . (and since perception is knowledge) what knowledge is, did not mean knowledge any more than not-knowledge (*Theaetetus* 182 e).*

This way of talking which permits the interchanging of contradictory terms not only makes knowledge impossible but also undermines the ground for preferential choice, for in the last analysis, one thing is no more (οὐ μᾶλλον, οὐδὲν μᾶλλον) than its opposite. Phillip De Lacy, in his study of the diverse uses of the expression οὐ μᾶλλον in ancient philosophy, points out how with Plato the expression begins to find its place in arguments and becomes a formula for refutation in discrediting self-contradictory views³. Commenting on the above passage in the *Theaetetus*, he remarks

2. At *Republic* 524 e: so that a thing appears no more one than also its opposite.

3. *Οὐ μᾶλλον and the antecedents of ancient Scepticism*, «*Phronesis*» 3 (1958) 59-71; reprinted in *Essays in Ancient Greek Philosophy*, edited by J. P. Anton with G. L. Kustas, New York, Albany, Suny Press 1971, 593-606. References to this edition.

that *Plato's concern here is perhaps less with a violation of the law of contradiction than with the loss of identity that follows on the admission of contrary or contradictory predicates*⁴. In support of what he believes Plato's concerns are he cojoins a passage from the *Cratylus* (439 a-440 a) and one from the *Timaeus* (49 b). Now the issues, it would seem, cannot be so easily separated as to allow the comparison De Lacy suggests. The general tenor of the argument in the *Theaetetus* recommends a stronger stand. For the problem is not just to deal with a case which violates the principle of contradiction but the elaborate examination of an alternative philosophical thesis on the nature of knowledge, which, if shown to be irrefutable, will demand the suspension of the principle of contradiction itself. If so, then, it would follow that Plato is logically obligated to disprove such a thesis, not simply to reconstruct or improve it, but discredit it so that he may safeguard the intelligibility of the sensible world. The same vital concern preoccupied Aristotle as well who developed further the lessons contained in the *Theaetetus*⁵.

Plato's analysis of false judgments and error shows that it is impossible for sense perceptions, once their nature is correctly understood, to give rise to genuine contradictory judgments. Were it not so, the principle of contradiction would be true of the dialectic of the Forms but would not apply in sensible nature. To make the principle relevant to the intelligibles but not the sensibles would not only be an absurd ontology, but also render Plato guilty of the most flagrant dualism. Now, assuming with Plato that judgments refer to real events and that commingling perceptions often cause confusion when they refer to contrary sensed events, it must be the case that not all such commingling judgments can be true. Confusion sets in when the power of sensing accepts its representations as being true as reported. However, the intervening assistance from reason can and does clear up such confusions, for as *Republic* 436 b declares, the same thing is never qualified simultaneously by contraries. Since this is an ontological structure, confusions and ambiguities are to be found not in the processes of the sensible things but understood as due to the limitations of the power of sensing when its reports are taken at their face value without the illuminating benefit of reason. A distinction, therefore, must be made between the objective conditions of change and the uncritical conjoining of perceptions of contrary occurrences.

4. Ibid. 595.

5. See H. Cherniss, *Aristotle's Criticism of Plato and the Academy*, Baltimore 1944, 214 ff. for key parallel passages from the *Theaetetus* and *Metaphysics* Γ.

A sceptical position which declares the sensible world incomprehensible, for it must be so if its processes are governed by the simultaneous presence of contrary qualifications, is utterly incompatible with Plato's theory of Forms and participation. To those who side with the sceptic on the basis of a *prima facie* defensible theory of sensation, Plato demonstrates that the defense of such a theory on which the rejection of the intelligibility of the sensible depends assumes the role of reason. But this is only a beginning, because once reason is employed in the dialectic of refutation it carries investigation to the substantive issues of the cause and the eventual removal of confusions in the operations of sensing. The sensible world is intelligible but it is reason that certifies perceptual truths, itself being as free of contradictoriness as is the world of the sensible.

It is idle doctrine for Plato as it is for Aristotle to say that we become aware of contradictoriness because we allegedly perceive instances of it in the world of change. Yet it is proper to raise the question, how is it then that we can speak of the ontological grounds of the principle of contradiction, especially as regards the sensible world? The problem received no systematic treatment in Plato's writings. What he offered on the whole was a host of original insights and suggestions which Aristotle extended and elaborated as part of his broader set of related themes in his *Metaphysics*. The fact, however, remains that the principle of contradiction holds for the world of Forms as well as that of the sensibles⁶. Given the nature of sensation and the passions involved, we do in fact make true and false judgments, yet only through an appeal to reason it can be decided which is what. The dialectic of the Forms yields only true judgments, for in performing its

6. My interpretation differs on this important point from that of R. Demos, defended in his article *Partly so and partly not so*, «Mind» N.S. 69 (1959) 51-56. Demos proceeds from his examination of ordinary expressions like *partly so* and *partly not so* which also occur in attribute-statements in Plato to conclude that they make trouble for the law of contradiction. He tries to show that these expressions allow for indeterminateness, and insofar as Plato made use of them he gave no satisfactory answer to the issues they raise. Thus *Plato found himself obliged to admit contradiction in the area of attribute-statements, as when we assign a predicate to an empirical study* (53). And concludes that *the law of contradiction applies (without exception) to no language except that of mathematics; in short, it applies only to what Plato called the realm of transcended forms. At least in the kingdom of ordinary language, the law of contradiction is far from being an absolute dictator; at best its authority is partly that of a reigning and partly that of a ruling monarch* (56). Criticism of the arguments used in support of this position must be reserved for another paper.

highest tasks reason proceeds without encumbrance from sensations. Just as perceptual judgments depend on reason for the clearing of seemingly contradictory representations, which when removed restore order in *doxa* (δόξα), so the sensible objects depend on the Forms for whatever structure, regularity and cohesiveness their processes display⁷.

The first clear formulation of the principle of contradiction is given in *Republic* 436 b, where Plato uses the principle to prove the tripartite nature of the soul :

*It is plain that the same thing won't be willing at the same time to do or suffer opposites with respect to the same part and in relation to the same thing. So if we should ever find that happening in these things, we'll know they weren't the same but many*⁸.

The context in which the passage occurs intends the formulation to apply to things capable of ἐθέλειν such as the soul and its parts. Here, it forces the conclusion that the soul has parts. Other passages indicate that he meant the principle to extend to external as well as internal events⁹.

3.

Aristotle gave the principle its definitive formulation in *Metaphysics* 1005 b 20-23 :

The same attribute cannot at the same time belong and not belong to the same subject and in the same respect.

In order that we may understand why Aristotle regards the principle of contradiction a cornerstone in his discussion of the nature of existence, we must consider the following : what science examines this principle, what kind of principle it is, what method is appropriate, why it is necessary to refute the views which deny it, what sustains its truth, and why knowledge of its foundations involves a certain kind of science. In presenting Aris-

7. Consider, for instance, the passage at *Republic* 523 a-524 e.

8. Δῆλον ὅτι ταὐτὸν τάναντία ποιεῖν ἢ πάσχειν κατὰ ταὐτόν γε καὶ πρὸς ταὐτόν οὐκ ἐθέλησει ἅμα, ὥστε ἂν που εὐρίσκομεν ἐν αὐτοῖς ταῦτα γιγνόμενα, εἰσόμεθα ὅτι οὐ ταὐτόν ἦν ἀλλὰ πλείω. The translation is by A. Bloom, *The Republic of Plato*, New York, Basic Books 1968, 115. It is more accurate than Corford's (*The Republic of Plato*, Oxford 1945, 133), P. Shorey's (in the Loeb edition) and H. D. P. Lee's (*The Republic*, Baltimore, Penguin Books 1955, 187), which either omit or alter significantly ἐθέλησει. The context intends the formulation to apply to cases exhibiting ἐθέλειν such as the soul and its parts.

9. Other versions of the principle are given at *Theaetetus* 188 a, *Phaedo* 102 e and 103 b, *Sophist* 230 b and *Republic* 602 e.

totle's views on these topics, our analysis will have to limit itself only to such aspects of his thought as bear directly on the issues involved. A few preliminary remarks are needed to set the context of his thinking on the subject, along with a few observations that indicate some points of difference with Plato's approach.

It should be noted that like Plato, Aristotle was fully aware how the denial of the principle of contradiction follows from the acceptance of Protagoras' doctrines (*Metaphysics* 1009 a 6-12, 1008 a 31-34) and the Heracleitean view of universal flux (1010 a 10-15). The Protagorean position carries with it not only a rejection of the existence of intelligible entities, but also that of any significant distinction between qualitative and quantitative change. That Aristotle argues that the theory leads to the paradoxical conclusion *all is rest* need not be discussed for the moment¹⁰. Aristotle sides with Plato in claiming that no meaningful analysis of the problem of change can be conducted without some conception of fixity and limits. Aristotle explicitly states that the intention of the theories which deny the principle of contradiction is not to deny the existence of the sensible world. The problem is that while affirming its existence they identify it in a way that makes existence hopelessly indeterminate and the seeking of truth about it a chase of flying game (1009 b 13-38, 1010 a 33-35).

On the positive side Plato and Aristotle agree on the presence of fixity in the world of sensible existence although each has his own explanation about it. For Plato the fixity is ultimately due to the separate Forms but lacks the eternality they have. For Aristotle the fixity is due to (a) the persistence of the essential structure each existent has throughout its duration and (b) the constant termini that delimit the changes it undergoes (*Physics* 224 b 1-16). Change for both Plato and Aristotle implies the presence of permanence. Whereas Plato asserted the existence of separate and permanent entities, the Forms, which are the ends of change (*Philebus* 54 c-d, 53 d-e, *Phaedo* 75 b), Aristotle regarded them as immanent principles defining the essential structures of things and the limits of substantial change (*Physics* 224 a 34-b 13; *Metaphysics* 1015 a 10-11, 1069 b 35-1070 a 4). The convergence of their views on the fundamental demand which recognizes grounds for fixity and the delimitation of all changes occurring in the sensible world shows that both philosophers subscribed to ontological positions allowing for the possibility of false statements and affirming the material truth of the principle of contradiction. If Protagoras is right, the implications of his position are devastating, for the invalidation

10. See on this, *Metaphysics* 1010 a 35-b 1 and 1063 a 17-21.

of the truth claim of the principle of contradiction carries with it the downfall of every ontology, including Protagoras' own, if it can be said that he had one. The controversy, therefore, when seen in this context, marked the highest crisis the philosophical mind encountered in antiquity.

4.

One of the main tasks of metaphysics is to establish such truths as the principle of contradiction. However, since the principle is regarded a fundamental truth it is impossible to infer it from other truths without begging the question¹¹. Since no direct proof can be given in the case of axioms, inquiry must proceed in the indirect way by exposing the paradoxes that follow from the denial of the truth of the principle. In fact this is precisely the method Aristotle follows in *Metaphysics* Γ. Certain technical points need to be mentioned lest Aristotle's procedure be misunderstood. To ask for direct proof of an allegedly true statement requires that the statement be produced as a conclusion in one of the valid syllogistic schemata. This procedure of demonstrative reasoning does not apply in the case of the inquiry which seeks to establish such fundamental truths as are employed and presupposed by all other inquiries that secure their truths syllogistically. The principle of contradiction, applicable as it is to every kind of inquiry, from physics and biology to ethics and poetics, is employed with equal force in the case of metaphysical inquiry, one of the functions of which is to discuss and establish this principle.

In fact, it is not possible for metaphysics to proceed with any of its analyses without assuming the truth of the principle. It may be objected that Aristotle is begging the question at this higher level, but it must be observed that he anticipated the charge of circularity in two ways: first by arguing that the nature of inquiry and the architectonic of scientific knowledge cannot and do not require demonstrative proofs of the principles they use; secondly, by distinguishing carefully between the logic of proof and the psychological basis of the cognition of principles. The position which he took on the problem of how we become aware of universals and form general statements and principles (cf. *Posterior Analytics* B 19; *Metaphysics* A 1-2, and *De anima* Γ) makes it clear that for Aristotle the problem of certainty cannot be decided solely in terms of the demands

11. Aristotle regards anyone who would demand that the principle of contradiction be demonstrated ignorant of the fundamentals of scientific reasoning. The demand leads to infinite regress: 1006 a 5-10.

raised by an uncompromising theory of proof in the sciences. The nature of perception as the background for induction (ἐπαγωγή), leading to the intuitive apprehension of principles by *nous*, is what establishes and validates the principles. In the last analysis, however, it is the nature of existing things that sustains the truth of all principles.

The absence of proof in the context of the logic of demonstration presents no threat to the claim of truth for the principle of contradiction when approached from the point of view of ontology. Nor can the charge of circularity be levelled against metaphysics on the basis that, being an inquiry, it both uses and defends the truth of this principle. Aristotle conceived of *sophia* not as the demonstration but the study of the principles and causes of τὸ ὄν. Part of its subject matter are the essential attributes of all existents, including sameness, contrariety, otherness, genus, species, whole, part, unity and perfection (*Metaphysics* 982 b 9, 1003 a 26). The conception of metaphysics that makes the quest for logical certainty a fundamental part of its program is totally alien to Aristotle as it is to Plato. Be that as it may, there are other special problems that must be considered in Aristotle's approach. On the whole, *Metaphysics* defends the principle of contradiction with the aid of ἔλεγχος and indirect proof. In the remarks that follow we are more concerned with the place of refutation in the method of metaphysics than the details of the attack against the philosophers whose views imply the denial of the principle.

Actually, the purpose of the ἔλεγχος is to discredit alternative ontologies of the sensible world. Aristotle is not simply content to show that such alternative positions fail to do full justice to the facts but, more importantly, they fail to qualify as ontological inquiries precisely because they render unintelligible the domain they claim to study. And this is a paradox of the first order. But first, a few remarks on Aristotle's metaphysics must be made here. The science of being *qua* being while it studies existents and the attributes that belong to them by virtue of their own nature, is not a demonstrative science claiming that it can deduce syllogistically such attributes from the fact of a being. Metaphysics as the science of principles and common attributes of all existents is not a rival to the psychology of perception nor is its intention to replace it. Its subject matter is given, not deduced. Any science, he declares, starts with definitions (ὁρισμοί) and hypotheses (ὑποθέσεις), i.e. undemonstrated definitions of all relevant terms and unproved assumptions about the existents that such terms denote. Both are principles (ἀρχαί). In the case of metaphysics, the definitions must be of such terms that denote attributes existents must possess regardless of what special inquiry investigates them. Such terms, pervasive to

all science but not treated by them, except in incidental ways, are form, matter, substance, accident, quality, quantity, potentiality, actuality, unity, plurality, and the like. Part of the business of metaphysics is to remove misconceptions about such key terms, and that is why ἔλεγχος plays so vital a role. The hypotheses of metaphysics, no less than those of the special inquiries, denote existents and their most general traits. In a very broad sense, the principle of contradiction may come under the class of hypothesis, as in *Posterior Analytics* 71 a 13, since it also points to ὅτι ἐστί. But, more technically speaking, it is one of the axioms, that is, common to all inquiry and of the widest universality; better known without qualification; extending to all beings without exception; non hypothetical, in Plato's sense (*Republic* 510 b). Being «the most certain of all principles» (*Metaphysics* 1005 b 22-23), not only is it used by all special inquiries in that they cannot proceed with their tasks without presupposing the truth of the axiom, but no ἔλεγχος can ever succeed without it, including the case of ἔλεγχος that seeks to establish the principle in *Metaphysics* Γ.

The main thrust of the ἔλεγχος is directed against all ontological and epistemological positions which invoke the primacy of indeterminateness. Here again Aristotle learned his lessons well from the teachings of Plato. It should be noted in advance that while pursuing the ἔλεγχος, Aristotle cannot avoid introducing cardinal doctrines of his own. It is not enough to say that his indirect proofs of the principle of contradiction exposes the paradoxes of the alternative views. The paradoxes make sense on the condition that the positions that generate them run counter to certain theses which can be shown to be integral to such positions or in conflict with certain true statements the relevance of which cannot be overlooked without loss of philosophical credibility. Aristotle misses no opportunity to carry his attack beyond the exhibiting of the internal inconsistencies of his opponents. Often the boundaries between his appeal to logical and ontological considerations seem blurred. This can be readily understood since logic and ontology for him are not to be regarded as completely separate disciplines. But the point is that much of his refutation through the use of indirect proof is carried out through a screening of the implications of opposed views against doctrines of his own. The correctness of his own theses is not what concerns us in this paper, but the fact that he makes use of them in the ἔλεγχος is. Since our purpose is not to examine the logical merits of the refutation, we must restrict our discussion to the identification of the doctrines used in the course of the ἔλεγχος, without trying at the same time to systematize them.

In Chapter 4 Aristotle undertakes to probe into the difficulties involved in the denial of the principle and consider a position, extreme, to be sure,

that does exactly that. His target seems to have been the school of Megara. The position maintains (a) the same thing can be and not be, and (b) it is possible so to judge. The implication is that the principle of contradiction holds neither in logic nor in ontology. One can disprove the position if its supporter can be brought to affirm or deny a statement which has some meaning both for himself and some others. Once this much is admitted the opponent must assume the burden of proof, for to make a statement is to employ reason despite his denial. If the opponent refuses to make a statement he can be said that he is not intelligently in touch with himself. The cardinal point here is that *every judgment must have a definite meaning*. The seven indirect proofs that follow are founded on this Aristotelian rule. A judgment which does not meet this condition is ambiguous¹². Words have definite meanings, and although single words like *is* can have a number of meanings they cannot have an infinite number of meanings, for then discourse would be impossible. The most we can do with the statement *x is and is not the same thing*, where the meanings of *is* become infinite, on the assumption that *is* is not what is intended, is to declare it ambiguous (καθ' ὁμωνυμίαν, 1006 b 18-19).

It is quite evident, then, that it is impossible for Aristotle to proceed with his indirect proofs and make a case against his opponents on the grounds of inconsistency without the rule of meaning. Since the conditions for observing the rule demand acceptance of the principle of contradiction, the refutation is valid only on Aristotelian principles and not by virtue of paradoxes following *exclusively* from the opponents' views. This much is admitted, but not fully acknowledged by Aristotle when he points out that his opponent will refute himself once he had made a statement which has met the rule. The case is very interesting because it shows two things : (a) the belief that words have infinite meanings is *per impossibile* irrefutable, and (b) either the belief is not a philosophical thesis at all or, if it, is it must be capable of reformulation according to the rule of meaning. Hence the paradoxes that follow from the view stated in 1005 b 35-36, make sense only when the consequences are seen as incongruous with basic Aristotelian truths. It would make sense, then, to say that the aporetic method in his *Metaphysics* as it applies to the refutations in Γ is hardly pure case of indirect proof.

The fact is that Aristotle uses a great number of doctrines in his refutations. He immediately introduces the doctrine of essence and attributes

12. For the detection of ambiguity technical suggestions are found in *Topics*, 15. See also *De interpretatione* passim.

which, he claims his opponents not only ignore but insofar as they can be said to have a theory about attributes it is one that makes all attributes, including the essential ones, accidental. Next he mentions the necessity of an original substratum (ὑποκείμενον) for accidents to inhere in and the logic that governs the statements about accidents¹³. Along with the above comes the crucial principle of *ousia* :

*There must be something which denotes substance. And if this is so, it has been shown that contradictories cannot be predicated at the same time*¹⁴.

The second proof, which shows that *if all contradictory statements are true of the same subject at the same time*, the plural character of the sensible world and all the differentiated existents that belong to distinct classes in it collapse, for one must conclude that all things are one. His doctrine of the existence of differences of degree in the nature of things is used in the seventh proof. The sixth proof is also of particular interest since it rests on Aristotle's view that truth in judgments of value involves the same in judgments of fact.

Another set of basic beliefs is given in chapters 5 and 6, where he refutes Protagoras. Once again the paradoxes that result from the denial of the principle of contradiction make sense only when understood in conjunction with beliefs about the world which Aristotle holds to be true. As for Protagoras' own position, the implication is that it makes the world unintelligible since it leaves everything indeterminate. In carrying out his refutation, Aristotle appeals to the following truths about the world : (1) Things may have contrary qualities, but do so only potentially, not actually. (2) There are certain unchangeable substances which are not subject to generation and destruction. (3) Things maintain their essential identity while undergoing changes. (4) The distinctive types of change are not reducible to one kind¹⁵. In attacking the Protagorean theory of knowledge he draws from his own views on the nature and functions of the senses the following :

13. The denial of an original ὑποκείμενον makes accidents form an infinite regress, and this is impossible. An accident of an accident can be properly handled only when both accidents belong to the same subject, but both must be brought back to *ousia*.

14. *Metaphysics* 1007 b 16-17: ἔσται ἄρα τι καὶ οὐσίαν σημαῖνον. Εἰ δὲ τοῦτο, δέδεικται ὅτι ἀδύνατον ἅμα κατηγορεῖσθαι τὰς ἀντιφάσεις.

15. What is meant here is that qualitative change cannot be reduced to quantitative change. Qualitative change in this connection is used in the sense of generation and destruction, that is, essential change, κατὰ τὸ εἶδος, κατὰ τὴν οὐσίαν. For quality in the sense of essential difference, see *Metaphysics* 1020 b 14, cf. *Categories* 3 b 20 and *Sophistici elenchi* 178 b 37.

(1) Not all appearances are true¹⁶. (2) The senses yield veridical appearances about their proper objects. (3) No single sense contradicts itself at the same object, nor at different moments with regard to the object itself¹⁷. (4) The sensible objects exist even when there are no sensing beings; the objects are ὑποκείμενα—substrata—with sensible properties which are the objective causes of sensations. (5) Sensation is not its own object; hence, the scepticism of the subjectivist is not an arguable position¹⁸.

Aristotle's concern in refuting Protagoras is a very serious one, and justifiably so. For, if the Protagorean position is philosophically sound in any conceivable way, the principle of contradiction must be surrendered, in which case none of Aristotle's ontological and epistemological theses can be true. It will not do for Aristotle to have his doctrine declared true on Protagorean grounds, to wit, that all judgments are true, including Aristotle's own. To yield on this point is tantamount to saying that one theory of knowledge is as good as any other, and one ontology as true as any other. If that were in fact the case, all ἔλεγχος would be but idle play on words and philosophical inquiry a sophisticated game of intellectual preferences with no significant consequences. If Protagoras is right, the paralysis of logos follows.

5.

It has been correctly said that Aristotle *is fighting the indeterminate on several fronts*¹⁹. To which we must add : so is Plato. However, even a limited attempt to discuss their analyses of determinate being would necessarily take us beyond the length of a single paper. Suffice it to say that in Aristotle's case I have given elsewhere a fuller discussion of how the principle

16. See *Metaphysics* 1010 b 1 ff. why this is so. The belief that all appearances are true rests on the assumption that all things are relative and hence nothing is self-existent. It is also shown that the belief involves a confused theory of sensation. Aristotle's own position is that things do not in fact appear with contradictory attributes to the same sense and in the same respect, manner and time.

17. According to Aristotle, if different sensations are reported the difference is due either to a change in our own condition or a change in the object. For instance, we are not mistaken about the quality of sweetness; if a glass of wine no longer tastes sweet, either the wine has turned sour or we have become, say, ill.

18. This is presented in *Metaphysics* 1010 b 30-1011 a 1.

19. A. Edel, *Aristotle*, New York, Dell Publishing Co. 1967, 89. Edel points out that the principle of contradiction reveals a multitude of roles. It is a principle of (i) demonstration, (ii) significance, (iii) limitation of meanings, (iv) essence, (v) pragmatic utility and (vi) determinate order in existence, 90-91. He recognizes the richness in Aris-

of contradiction requires for its understanding the theory of categories and contraries and how his entire analysis of opposition presupposes that theory²⁰.

Our main goal in the present paper has been to exhibit in general outline the dialectic and basic tenets Plato and Aristotle employed in their defense of the truth of the principle of contradiction, together with an examination of the consequences they thought its denial has for philosophical inquiry. Any attempt to go beyond these limits would have carried us too far afield. Thus, nothing was said about modern approaches to the principle of contradiction as *a law of thought* or *a law of logic*, as it came to be called in modern times. It appears that the classical formulations and solutions of the relevant problems have lost none of their significant features. Recent controversy on the nature of the principle reflects what new anomalies philosophy must face as the result of interpretations suggested by the methodology of the sciences and linguistic theories. The implications they have for metaphysics constitute a problem that has engaged the attention of many thinkers²¹. Since they concern directly the possibility and nature of metaphysics, it would seem that the issues which Plato and Aristotle raised on the subject are still with us.

totle's treatment of the principle but states that *it is possible to take issue with it in many if not all of his interpretations*. It is difficult to understand what Edel means by *interpretations* and in what ways they differ from what calls *roles*. The critical issues he thinks call for attention are stated in the following: *Purely within demonstration there has been controversy about the possibility of formulating many-valued logics. With respect to essence and accident, there are other modes of specifying meaning, of a looser sort, than his theory of definition allows. With respect to the fixity in existence, the Heraclitean tradition may have more evidence than the partisans of fixed order have believed—in any case, this is a problem of physical evidence. It is perhaps in dealing with the structure of system and communication that Aristotle's principle is most impregnable. Even three-valued logics may require a two-valued metalogic somewhere up the scale—if a proposition is given three possible values, then it either has a given one or them or it doesn't. Communication requires some degree of determinateness in symbols. Action requires determinateness, too—although perhaps less than some of our cultural systems have embodied in their peremptory demands. . . All these are different issues requiring their own formulation of modes of solution* 91-92.

20. See my *Aristotle's Theory of Contrariety*, London 1957, esp. chapters 4 and 6.

21. E. Mesthene, *On the status of the laws of logic*, «Philosophy and Phenomenological Research» 10 (1950) 354-373. In agreement with Aristotle but without appealing to his ontological doctrines, Mesthene defends the principle of contradiction against recent interpretations which reduce it to an inductive generalization at best or a merely conventional logical rule. *Discovery of what exactly is the source, the sta-*

Η ΑΡΧΗ ΤΗΣ ΑΝΤΙΦΑΣΕΩΣ ΚΑΤΑ ΤΟΝ ΑΡΙΣΤΟΤΕΛΗ

ΟΝΤΟΛΟΓΙΚΗ ΘΕΜΕΛΙΩΣΙΣ ΚΑΙ ΠΛΑΤΩΝΙΚΕΣ ΠΗΓΕΣ ΤΗΣ

Περίληψις.

Ὁ Ἀριστοτέλης θεωρεῖ ὡς ἔργο τῆς φιλοσοφίας τὴν ἔρευνα τῶν ἀρχῶν τῶν ὄντων καὶ τῶν ἐπιστημῶν, συνεπῶς δὲ καὶ τὴν βεβαιωτάτην πασῶν τῶν ἀρχῶν, τὴν ἀρχὴν τῆς ἀντιφάσεως.

Σκοπὸς τῆς παρούσης μελέτης εἶναι νὰ ἐξετάσῃ τὸ πρόβλημα τῆς φιλοσοφικῆς θεμελιώσεως τῆς ἀρχῆς τῆς ἀντιφάσεως κατὰ τὸν Πλάτωνα καὶ τὸν Ἀριστοτέλη, εἰδικῶς ἐν σχέσει πρὸς τὸν ἔλεγχον τῶν ἐπιπτώσεων ποὺ συνακολουθοῦν τὴν ἄρνησιν τῆς ἀρχῆς αὐτῆς. Ἐφαρμόζοντας τὴ διαλεκτικὴ μέθοδο, ἰδίως στὰ *Μετὰ τὰ φυσικὰ* Γ, ὁ Ἀριστοτέλης υἱοθετεῖ καὶ προεκτείνει τὰ πορίσματα τοῦ πλατωνικοῦ *Θεαιτήτου*. Τόσο ὁ Πλάτων ὅσο καὶ ὁ Ἀριστοτέλης κατέδειξαν ὅτι ἡ ὀντολογικὴ θέσις ποὺ βλέπει τὴν πραγματικότητα ὡς αἰώνιο γίνεσθαι, αἶρει κάθε ἔννοια σταθερότητος καὶ προσδιορισμοῦ, καὶ καταλήγει ἀναπότρεπτα εἰς ἄρσιν τῆς ἀρχῆς τῆς ἀντιφάσεως. Παράδειγμα, ὁ σχετικισμὸς τοῦ Πρωταγόρα (καὶ τοῦ Ἡρακλείτου), ποὺ φθάνει στὴν ἀκραίαν θέσιν νὰ ἀρνηθῇ τὴν δυνατότητα ψευδῶν κρίσεων. Μιὰ τέτοια θεωρία ὅχι μόνον ἀνατρέπει κάθε βάση ἀντικειμενικῶν ἀξιολογήσεων, ἀλλὰ καὶ ἀποσιωπᾷ τὸν φιλοσοφικὸ λόγον καὶ τὴν ἔρευνα.

Βασικὸ μέλημα τῶν δύο μεγάλων φιλοσόφων ἀπέβη ἡ ὀντολογικὴ καὶ ἐπιστημολογικὴ ἀποκατάστασις τῆς ἀντικειμενικότητος τῶν προσδιορισμῶν τῶν πραγμάτων καὶ τῶν κρίσεων τοῦ αἰσθητοῦ κόσμου, τῶν μεταβολῶν καὶ τῶν κινήσεων τῶν ὄντων. Μὲ τὴ Θεωρία τῶν Ἰδεῶν ὁ Πλάτων ἔλυσε τὸ πρόβλημα τῆς σχέσεως μεταβολῆς καὶ εἶναι στὰ αἰσθητά, καθὼς καὶ τὸ πρόβλημα τῆς λογικῆς τῶν κρίσεων. Ὁ ἐπιστημολογικὸς σχετικισμὸς τοῦ Πρωταγόρα περιορίζει τὴ γνωσιακὴ δραστηριότητα στὰ αἰσθητά, καὶ ταυτοχρόνως δηλώνει πὼς ὅλες οἱ κρίσεις εἶναι ἀληθεῖς.

Ὁ Πλάτων ἀναγνωρίζει τὴν πραγματικότητα τῶν αἰσθητῶν, ἀλλὰ ὅχι χωρὶς ὀντολογικοὺς προσδιορισμούς. Συνεχίζει τὴν προσπάθεια τοῦ Παρμενίδη νὰ συλλάβῃ τὸ ὄντως ὄν, χωρὶς ὅμως καὶ νὰ ὑποτιμήσῃ τὰ προβλήματα ποὺ θέτουν οἱ σημασιολογήσεις τοῦ αἰσθητοῦ κόσμου. Οἱ λύσεις ποὺ

tus and the operations of these [logical principles] is the task of metaphysical inquiry. He defends the thesis that they must enter into any description of the nature of existence as such, and function as the first principles of intelligible discourse 368. For a fuller elaboration of his position see his more recent work How Language makes us know, The Hague 1964. Also, J. Loewenberg, Reason and the Nature of Things, La Salle, Illinois 1959, esp. ch. 2: «Faith in Reason».



προσφέρει ο Πλάτων στηρίζονται στον αδιάρρηκτο δεσμό μεταξύ 'Οντολογίας και Γνωσιολογίας.

Με τη θεωρία των 'Ιδεών ο Πλάτων δέν ἐζήτησε νὰ καταδικάσῃ τὰ αἰσθητὰ ὡς μὴ ὄντα ἢ ὡς ἀκαταλήπτους φορεῖς τοῦ *γίγνεσθαι*. Γι' αὐτὸ καὶ ὑπεστήριξε μὲ ἐπιχειρήματα ὅτι οἱ κρίσεις γιὰ τὰ αἰσθητὰ εἶναι ψευδεῖς καὶ ἀληθεῖς, ὅχι δὲ μόνον ἀληθεῖς, ὅπως ἐπρότεινε ὁ Πρωταγόρας. Εἰδικὰ στὸν *Θεαίτητο* ἔδειξε ὅτι οἱ κρίσεις γιὰ τὸν μεταβλητὸ κόσμον δέν ἔχουν γνωσιακὴ φερεγγυότητα, καὶ ὅτι ἐξαρτῶνται γι' αὐτὴν ἀπὸ τὴ νοητικὴν ἐνέργεια. Τὰ ἴδια τὰ αἰσθητὰ ὅμως ἔχουν καὶ κίνηση καὶ σταθερότητα. Ἀποδεικνύει ὅτι μία θεωρία, ὅπως αὐτὴ τοῦ Πρωταγόρα, ποὺ ξεκινᾷ ἀπὸ τὸν ὑποκειμενισμό τῆς γνώσεως ὁδηγεῖ στὶς ἐξῆς δυσκολίες : 1) δέν ἐξηγεῖ τὸ πρόβλημα τοῦ ποιοῦ καὶ τῆς αἰσθήσεως· 2) αἶρει τὴν ἴδια τῆς τὴν θεμελιακὴ θέσιν, ὅτι ὅλες οἱ κρίσεις εἶναι ἀληθεῖς· 3) ἀδυνατεῖ νὰ προτείνῃ ἔστω καὶ μίαν ἔννοια δηλωτικὴ σταθερότητος χωρὶς νὰ αὐτοδιαψευσθῇ· 4) αἶροντας τὴν ἀρχὴ τῆς ἀντιφάσεως αἶρει καὶ τὴν σημασιολόγησιν τῆς πρωταρχικῆς τῆς θέσεως· καὶ 5) μὲ τὴν παραδοχὴ τῆς ἀπολύτου μεταβλητότητος ὁδηγεῖ σὲ δύο ἰσοβαρῆ συμπεράσματα : εἴτε δηλαδὴ στὸ ὅτι τὰ πάντα κινοῦνται εἴτε στὸ ὅτι τὰ πάντα ἀκίνητοῦν.

Σύμφωνα μὲ τὸν Πλάτωνα ἡ ἀρχὴ τῆς ἀντιφάσεως ἰσχύει προκειμένου τόσο περὶ τῶν νοητῶν ὅσο καὶ περὶ τῶν αἰσθητῶν. Ἡ διαλεκτικὴ τῶν 'Ιδεῶν μᾶς δίνει μόνον ἀληθεῖς κρίσεις, ἐνῶ ἡ ἄσκησις τῶν αἰσθήσεων ἐπιτρέπει καὶ ἀληθεῖς καὶ ψευδεῖς κρίσεις, ποὺ ἀποσαφηνίζονται μόνο μὲ τὴν ἐπέμβασιν τοῦ ὀρθοῦ λόγου.

Ὁ Ἀριστοτέλης διέγνωσε μὲ ἀκρίβεια τὴν ἀξία τῶν πορισμάτων τῆς πλατωνικῆς κριτικῆς γιὰ τὴ θεμελιακὴ λειτουργία τῆς ἀρχῆς τῆς ἀντιφάσεως, τῆς *βεβαιότητας τῶν ἀρχῶν*. Στὶς μεταφυσικὲς τοῦ ἀναλύσεις προτείνει, γιὰ τὴν διερεύνησιν τοῦ ὅλου θέματος, τὶς ἐξῆς προϋποθέσεις : 1) ποιά ἐπιστήμη ἔχει ὡς ἀντικείμενό της τὴν ἔρευνα τῆς ἐν λόγῳ ἀρχῆς· 2) τί εἶδους ἀρχὴ εἶναι αὐτὴ· 3) ποιά ἡ ἀρμόζουσα μέθοδος· 4) ποιοὶ οἱ λόγοι ποὺ ἐπιβάλλουν τὸν ἔλεγχον τῶν θεωριῶν, ποὺ συνεπάγονται ἄρσιν τῆς ἰδίας αὐτῆς ἀρχῆς· 5) πῶς θεμελιώνεται ἡ ἀλήθειά της· καὶ 6) γιατί ἡ γνώσις τῶν θεμελίων της ἀπαιτεῖ τὴν προβολὴ μιᾶς εἰδικῆς πρὸς τοῦτο ἐπιστήμης, δηλαδὴ τῆς πρώτης φιλοσοφίας.

Ὁ Ἀριστοτέλης συμφωνεῖ μὲ τὸν Πλάτωνα ὡς πρὸς τὸ ὅτι κάθε ἀπόπειρα νὰ διερευνηθῇ ὁ αἰσθητὸς κόσμος χωρὶς προσφυγὴ σὲ ἔννοιες, οἱ ὁποῖες νὰ προσφέρουν σταθερότητα καὶ ὅρια, αὐτοαναιρεῖται. Χωρὶς τὶς ἔννοιες τῆς οὐσίας καὶ τῶν κοινῶν γνωρισμάτων τῶν ὄντων ἐδραίωσις τῆς γνώσεως ἀποβαίνει ἀδύνατη. Ὑποστηρίζει λοιπὸν ὁ Ἀριστοτέλης ὅτι οὔτε τὸν αἰσθητὸν κόσμον χαρακτηρίζει ἀπειρότης μεταβολῆς οὔτε καὶ οἱ αἰσθήσεις ἐκ φύσεως στεροῦνται γνωσιακῆς φερεγγυότητος.

Ἡ ἀρχὴ τῆς ἀντιφάσεως ἐγγυᾶται περὶ τῆς ἀληθείας τῶν ἄλλων ἀξιωματῶν χωρὶς ἢ ἰδίᾳ νὰ εἶναι ἀντικείμενο συλλογιστικῆς ἀποδείξεως. Διευκρίνησις τῆς ἀληθείας τῆς ἀρχῆς αὐτῆς γίνεται ἐμμέσως, δηλαδή διὰ τοῦ ἐλέγχου τῶν παραδόξων, τὰ ὅποια ἢ ἄρνησίς της συνεπάγεται. Μὲ συνέπειαν δηλώνει ὁ Ἀριστοτέλης ὅτι κάθε ὄντολογικὴ θεωρία ποὺ αἶρει τὴν ἀρχὴν τῆς ἀντιφάσεως ὅχι μόνον αὐτοαναιρεῖται λογικῶς, ἀλλὰ καὶ καταντᾷ νὰ θέτῃ τὸ ἐξωλογικὸν τοῦ ἰδίου τοῦ ἀντικειμένου τῆς ἐρεύνης. Οἱ παρατηρήσεις αὐτὲς ὑποδηλώνουν ὅτι ἡ διαφωνία μεταξὺ Σοφιστῶν ἀφ' ἑνός, καὶ Πλάτωνος καὶ Ἀριστοτέλους ἀφ' ἑτέρου, δὲν ἦταν ἀπλῆ ἀντιγνωμία ἀντιλήψεων. Ἀφοροῦσε στὴν ὑπόστασι καὶ στὴ δυνατότητα τῆς ἰδίας τῆς φιλοσοφίας.

Στὰ *Μετὰ τὰ φυσικά*, Γ 4, ὁ Ἀριστοτέλης ἐλέγχει τὴν θεωρία ποὺ διατείνεται ὅτι : 1) τὸ ἴδιο πρᾶγμα δύναται νὰ εἶναι καὶ νὰ μὴ εἶναι, 2) ἢ ἐν λόγῳ ἐκφορὰ εἶναι ἐπιτρεπτή. Ἄν ὅμως ἡ θέσις αὐτὴ στηρίζεται καὶ ἐπὶ τῆς ἐλαχίστης βάσεως ἀληθείας, κατ' ἀνάγκην καταλήγομε σὲ ἄρνησιν τῆς ἀρχῆς τῆς ἀντιφάσεως τόσο στὸ πεδίον τῆς Λογικῆς ὅσο καὶ στὸ πεδίον τῆς Ὀντολογίας. Ὁ Ἀριστοτέλης ἐφαρμόζει τὴν ἐλεγκτικὴ μέθοδο μὲ συνέπεια καὶ διεξοδικότητα βασιζόμενος σ' ἓνα πλῆθος φυσικῶν, ψυχολογικῶν καὶ μεταφυσικῶν πορισμάτων, καὶ ὁλοκληρώνει τὴν ἐπιχειρηματολογία τῶν ἑπτὰ ἐμμέσων ἀποδείξεων τοῦ ἀβασίμου χαρακτῆρος κάθε ἀποδείρας νὰ ἀρθῇ ἡ ἀρχὴ τῆς ἀντιφάσεως.

Ἡ ἐρευνα τοῦ θέματος καθιστᾷ φανερόν ὅτι ὁ Πλάτων καὶ ὁ Ἀριστοτέλης ὅχι μόνον κατενόησαν καὶ ἀντιμετώπισαν μὲ ἐπιτυχία τὶς δυσχέρειες μιᾶς βαθυτάτης πνευματικῆς κρίσεως, ἀπὸ τὴν ὁποία πέρασε ἡ φιλοσοφία στὴν κλασικὴν ἐποχὴ, ἀλλὰ καὶ κατὰ τρόπον ἐξ ἴσου σημαντικὸν ἔθεσαν, ἅπαξ διὰ παντός, τὸ πρόβλημα τῆς φιλοσοφίας ὑπὸ τὴν πιὸ δραματικὴν του μορφή. Ἄν ἡ πρωταγόρειος θέσις γίνῃ ἀποδεκτὴ, ἡ παράλυσις τοῦ Λόγου καθίσταται ἀναπόφευκτη.

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