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350 BC

ON SOPHISTICAL REFUTATIONS

by Aristotle

translated by W. A. Pickard-Cambridge

Book I

1

LET us now discuss sophistic refutations, i.e. what appear to be
refutations but are really fallacies instead. We will begin in the
natural order with the first.

That some reasonings are genuine, while others seem to be so but are not, is evident. This happens with arguments, as also elsewhere, through a certain likeness between the genuine and the sham. For physically some people are in a vigorous condition, while others merely seem to be so by blowing and rigging themselves out as the tribesmen do their victims for sacrifice; and some people are beautiful thanks to their beauty, while others seem to be so, by dint of embellishing themselves. So it is, too, with inanimate things; for of these, too, some are really silver and others gold, while others are not and merely seem to be such to our sense; e.g. things made of litharge and tin seem to be of silver, while those made of yellow metal look golden. In the same way both reasoning and refutation are sometimes genuine, sometimes not, though inexperience may make them appear so: for inexperienced people obtain only, as it were, a distant view of these things. For reasoning rests on certain statements such that they involve necessarily the assertion of something other than what has been stated, through what has been stated: refutation is reasoning involving the contradictory of the given conclusion. Now some of them do not really achieve this, though they seem to do so for a number of reasons; and of these the most prolific and usual domain is the argument that turns upon names only. It is impossible in a discussion to bring in the actual things discussed: we use their names as symbols instead of them; and therefore we suppose that what follows in the names, follows in the things as well, just as people who calculate suppose in regard to their counters. But the two cases (names and things) are not alike. For names are finite and so is the sum-total of formulae, while things are infinite in number. Inevitably, then, the same formulae, and a single name, have a number of meanings. Accordingly just as, in counting, those who are not clever in manipulating their counters are taken in by the experts, in the same way in arguments too those who are not well acquainted with the force of names misreason both in their own discussions and when they listen to others. For this reason, then, and for others to be mentioned later, there exists both reasoning and refutation that is apparent but not real. Now for some people it is better worth while to seem to be wise, than to be wise without seeming to be (for the art of the sophist is the semblance of wisdom without the reality, and the sophist is one who makes money from an apparent but unreal wisdom); for them, then, it is clearly essential also to seem to accomplish the task of a wise man rather than to accomplish it without seeming to do so. To reduce it to a single point of contrast it is the business of one who knows a thing, himself to avoid fallacies in the subjects which he knows and to be able to show up the man who makes them; and of these accomplishments the one depends on the faculty to render an answer, and the other upon the securing of one. Those, then, who would be sophists are bound to study the class of arguments aforesaid: for it is worth their while: for a faculty of this kind will make a man seem to be wise, and this is the purpose they happen to have in view.

Clearly, then, there exists a class of arguments of this kind, and it is at this kind of ability that those aim whom we call sophists.

Let us now go on to discuss how many kinds there are of sophistical arguments, and how many in number are the elements of which this faculty is composed, and how many branches there happen to be of this inquiry, and the other factors that contribute to this art.

2

Of arguments in dialogue form there are four classes:

Didactic, Dialectical, Examination-arguments, and Contentious arguments. Didactic arguments are those that reason from the principles appropriate to each subject and not from the opinions held by the answerer (for the learner should take things on trust): dialectical arguments are those that reason from premisses generally accepted, to the contradictory of a given thesis: examination-arguments are those that reason from premisses which are accepted by the answerer and which any one who pretends to possess knowledge of the subject is bound to know-in what manner, has been defined in another treatise: contentious arguments are those that reason or appear to reason to a conclusion from premisses that appear to be generally accepted but are not so. The subject, then, of demonstrative arguments has been discussed in the Analytics, while that of dialectic arguments and examination-arguments has been discussed elsewhere: let us now proceed to speak of the arguments used in competitions and contests.

3

First we must grasp the number of aims entertained by those who argue as competitors and rivals to the death. These are five in number, refutation, fallacy, paradox, solecism, and fifthly to reduce the opponent in the discussion to babbling-i.e. to constrain him to repeat himself a number of times: or it is to produce the appearance of each of these things without the reality. For they choose if possible plainly to refute the other party, or as the second best to show that he is committing some fallacy, or as a third best to lead him into paradox, or fourthly to reduce him to solecism, i.e. to make the answerer, in consequence of the argument, to use an ungrammatical expression; or, as a last resort, to make him repeat himself.

4

There are two styles of refutation: for some depend on the language used, while some are independent of language. Those ways of producing the false appearance of an argument which depend on language are six in number: they are ambiguity, amphiboly, combination, division of words, accent, form of expression. Of this we may assure ourselves both by induction, and by syllogistic proof based on this-and it may be on other assumptions as well-that this is the number of ways in which we might fail to mean the same thing by the same names or expressions. Arguments such as the following depend upon ambiguity. 'Those learn who know: for it is those who know their

letters who learn the letters dictated to them'. For to 'learn' is ambiguous; it signifies both 'to understand' by the use of knowledge, and also 'to acquire knowledge'. Again, 'Evils are good: for what needs to be is good, and evils must needs be'. For 'what needs to be' has a double meaning: it means what is inevitable, as often is the case with evils, too (for evil of some kind is inevitable), while on the other hand we say of good things as well that they 'need to be'. Moreover, 'The same man is both seated and standing and he is both sick and in health: for it is he who stood up who is standing, and he who is recovering who is in health: but it is the seated man who stood up, and the sick man who was recovering'. For 'The sick man does so and so', or 'has so and so done to him' is not single in meaning: sometimes it means 'the man who is sick or is seated now', sometimes 'the man who was sick formerly'. Of course, the man who was recovering was the sick man, who really was sick at the time: but the man who is in health is not sick at the same time: he is 'the sick man' in the sense not that he is sick now, but that he was sick formerly. Examples such as the following depend upon amphiboly: 'I wish that you the enemy may capture'. Also the thesis, 'There must be knowledge of what one knows': for it is possible by this phrase to mean that knowledge belongs to both the knower and the known. Also, 'There must be sight of what one sees: one sees the pillar: ergo the pillar has sight'. Also, 'What you profess to-be, that you profess to-be: you profess a stone to-be: ergo you profess-to-be a stone'. Also, 'Speaking of the silent is possible': for 'speaking of the silent' also has a double meaning: it may mean that the speaker is silent or that the things of which he speaks are so. There are three varieties of these ambiguities and amphibolies: (1) When either the expression or the name has strictly more than one meaning, e.g. aetos and the 'dog'; (2) when by custom we use them so; (3) when words that have a simple sense taken alone have more than one meaning in combination; e.g. 'knowing letters'. For each word, both 'knowing' and 'letters', possibly has a single meaning: but both together have more than one-either that the letters themselves have knowledge or that someone else has it of them.

Amphiboly and ambiguity, then, depend on these modes of speech. Upon the combination of words there depend instances such as the following: 'A man can walk while sitting, and can write while not writing'. For the meaning is not the same if one divides the words and if one combines them in saying that 'it is possible to walk-while-sitting' and write while not writing]. The same applies to the latter phrase, too, if one combines the words 'to write-while-not-writing': for then it means that he has the power to write and not to write at once; whereas if one does not combine them, it means that when he is not writing he has the power to write. Also, 'He now if he has learnt his letters'. Moreover, there is the saying that 'One single thing if you can carry a crowd you can carry too'.

Upon division depend the propositions that 5 is 2 and 3, and odd, and that the greater is equal: for it is that amount and more besides. For the same phrase would not be thought always to have the same meaning when divided and when combined, e.g. 'I made thee a slave once

a free man', and 'God-like Achilles left fifty a hundred men'.

An argument depending upon accent it is not easy to construct in unwritten discussion; in written discussions and in poetry it is easier. Thus (e.g.) some people emend Homer against those who criticize as unnatural his expression to men ou kataputhetai ombro. For they solve the difficulty by a change of accent, pronouncing the ou with an acuter accent. Also, in the passage about Agamemnon's dream, they say that Zeus did not himself say 'We grant him the fulfilment of his prayer', but that he bade the dream grant it. Instances such as these, then, turn upon the accentuation.

Others come about owing to the form of expression used, when what is really different is expressed in the same form, e.g. a masculine thing by a feminine termination, or a feminine thing by a masculine, or a neuter by either a masculine or a feminine; or, again, when a quality is expressed by a termination proper to quantity or vice versa, or what is active by a passive word, or a state by an active word, and so forth with the other divisions previously laid down. For it is possible to use an expression to denote what does not belong to the class of actions at all as though it did so belong. Thus (e.g.) 'flourishing' is a word which in the form of its expression is like 'cutting' or 'building': yet the one denotes a certain quality-i.e. a certain condition-while the other denotes a certain action. In the same manner also in the other instances.

Refutations, then, that depend upon language are drawn from these common-place rules. Of fallacies, on the other hand, that are independent of language there are seven kinds:

- (1) that which depends upon Accident:
- (2) the use of an expression absolutely or not absolutely but with some qualification of respect or place, or time, or relation:
- (3) that which depends upon ignorance of what 'refutation' is:
- (4) that which depends upon the consequent:
- (5) that which depends upon assuming the original conclusion:
- (6) stating as cause what is not the cause:
- (7) the making of more than one question into one.

Fallacies, then, that depend on Accident occur whenever any attribute is claimed to belong in like manner to a thing and to its accident. For since the same thing has many accidents there is no necessity that all the same attributes should belong to all of a thing's predicates and to their subject as well. Thus (e.g.), 'If Coriscus be different from "man", he is different from himself: for he

is a man': or 'If he be different from Socrates, and Socrates be a man, then', they say, 'he has admitted that Coriscus is different from a man, because it so happens (accidit) that the person from whom he said that he (Coriscus) is different is a man'.

Those that depend on whether an expression is used absolutely or in a certain respect and not strictly, occur whenever an expression used in a particular sense is taken as though it were used absolutely, e.g. in the argument 'If what is not is the object of an opinion, then what is not is': for it is not the same thing 'to be x' and 'to be' absolutely. Or again, 'What is, is not, if it is not a particular kind of being, e.g. if it is not a man.' For it is not the same thing 'not to be x' and 'not to be' at all: it looks as if it were, because of the closeness of the expression, i.e. because 'to be x' is but little different from 'to be', and 'not to be x' from 'not to be'. Likewise also with any argument that turns upon the point whether an expression is used in a certain respect or used absolutely. Thus e.g. 'Suppose an Indian to be black all over, but white in respect of his teeth; then he is both white and not white.' Or if both characters belong in a particular respect, then, they say, 'contrary attributes belong at the same time'. This kind of thing is in some cases easily seen by any one, e.g. suppose a man were to secure the statement that the Ethiopian is black, and were then to ask whether he is white in respect of his teeth; and then, if he be white in that respect, were to suppose at the conclusion of his questions that therefore he had proved dialectically that he was both white and not white. But in some cases it often passes undetected, viz. in all cases where, whenever a statement is made of something in a certain respect, it would be generally thought that the absolute statement follows as well; and also in all cases where it is not easy to see which of the attributes ought to be rendered strictly. A situation of this kind arises, where both the opposite attributes belong alike: for then there is general support for the view that one must agree absolutely to the assertion of both, or of neither: e.g. if a thing is half white and half black, is it white or black?

Other fallacies occur because the terms 'proof' or 'refutation' have not been defined, and because something is left out in their definition. For to refute is to contradict one and the same attribute-not merely the name, but the reality-and a name that is not merely synonymous but the same name-and to confute it from the propositions granted, necessarily, without including in the reckoning the original point to be proved, in the same respect and relation and manner and time in which it was asserted. A 'false assertion' about anything has to be defined in the same way. Some people, however, omit some one of the said conditions and give a merely apparent refutation, showing (e.g.) that the same thing is both double and not double: for two is double of one, but not double of three. Or, it may be, they show that it is both double and not double of the same thing, but not that it is so in the same respect: for it is double in length but not double in breadth. Or, it may be, they show it to be both double and not double of the same thing and in the same respect and manner, but not that it is so at the same time:

and therefore their refutation is merely apparent. One might, with some violence, bring this fallacy into the group of fallacies dependent on language as well.

Those that depend on the assumption of the original point to be proved, occur in the same way, and in as many ways, as it is possible to beg the original point; they appear to refute because men lack the power to keep their eyes at once upon what is the same and what is different.

The refutation which depends upon the consequent arises because people suppose that the relation of consequence is convertible. For whenever, suppose A is, B necessarily is, they then suppose also that if B is, A necessarily is. This is also the source of the deceptions that attend opinions based on sense-perception. For people often suppose bile to be honey because honey is attended by a yellow colour: also, since after rain the ground is wet in consequence, we suppose that if the ground is wet, it has been raining; whereas that does not necessarily follow. In rhetoric proofs from signs are based on consequences. For when rhetoricians wish to show that a man is an adulterer, they take hold of some consequence of an adulterous life, viz. that the man is smartly dressed, or that he is observed to wander about at night. There are, however, many people of whom these things are true, while the charge in question is untrue. It happens like this also in real reasoning; e.g. Melissus' argument, that the universe is eternal, assumes that the universe has not come to be (for from what is not nothing could possibly come to be) and that what has come to be has done so from a first beginning. If, therefore, the universe has not come to be, it has no first beginning, and is therefore eternal. But this does not necessarily follow: for even if what has come to be always has a first beginning, it does not also follow that what has a first beginning has come to be; any more than it follows that if a man in a fever be hot, a man who is hot must be in a fever.

The refutation which depends upon treating as cause what is not a cause, occurs whenever what is not a cause is inserted in the argument, as though the refutation depended upon it. This kind of thing happens in arguments that reason ad impossible: for in these we are bound to demolish one of the premisses. If, then, the false cause be reckoned in among the questions that are necessary to establish the resulting impossibility, it will often be thought that the refutation depends upon it, e.g. in the proof that the 'soul' and 'life' are not the same: for if coming-to-be be contrary to perishing, then a particular form of perishing will have a particular form of coming-to-be as its contrary: now death is a particular form of perishing and is contrary to life: life, therefore, is a coming to-be, and to live is to come-to-be. But this is impossible: accordingly, the 'soul' and 'life' are not the same. Now this is not proved: for the impossibility results all the same, even if one does not say that life is the same as the soul, but merely says that life is contrary to death, which is a form of perishing, and that perishing has 'coming-to-be' as its contrary. Arguments of that

kind, then, though not inconclusive absolutely, are inconclusive in relation to the proposed conclusion. Also even the questioners themselves often fail quite as much to see a point of that kind.

Such, then, are the arguments that depend upon the consequent and upon false cause. Those that depend upon the making of two questions into one occur whenever the plurality is undetected and a single answer is returned as if to a single question. Now, in some cases, it is easy to see that there is more than one, and that an answer is not to be given, e.g. 'Does the earth consist of sea, or the sky?' But in some cases it is less easy, and then people treat the question as one, and either confess their defeat by failing to answer the question, or are exposed to an apparent refutation. Thus 'Is A and is B a man?' 'Yes.' 'Then if any one hits A and B, he will strike a man' (singular), 'not men' (plural). Or again, where part is good and part bad, 'is the whole good or bad?' For whichever he says, it is possible that he might be thought to expose himself to an apparent refutation or to make an apparently false statement: for to say that something is good which is not good, or not good which is good, is to make a false statement. Sometimes, however, additional premisses may actually give rise to a genuine refutation; e.g. suppose a man were to grant that the descriptions 'white' and 'naked' and 'blind' apply to one thing and to a number of things in a like sense. For if 'blind' describes a thing that cannot see though nature designed it to see, it will also describe things that cannot see though nature designed them to do so. Whenever, then, one thing can see while another cannot, they will either both be able to see or else both be blind; which is impossible.

6

The right way, then, is either to divide apparent proofs and refutations as above, or else to refer them all to ignorance of what 'refutation' is, and make that our starting-point: for it is possible to analyse all the aforesaid modes of fallacy into breaches of the definition of a refutation. In the first place, we may see if they are inconclusive: for the conclusion ought to result from the premisses laid down, so as to compel us necessarily to state it and not merely to seem to compel us. Next we should also take the definition bit by bit, and try the fallacy thereby. For of the fallacies that consist in language, some depend upon a double meaning, e.g. ambiguity of words and of phrases, and the fallacy of like verbal forms (for we habitually speak of everything as though it were a particular substance)-while fallacies of combination and division and accent arise because the phrase in question or the term as altered is not the same as was intended. Even this, however, should be the same, just as the thing signified should be as well, if a refutation or proof is to be effected; e.g. if the point concerns a doublet, then you should draw the conclusion of a 'doublet', not of a 'cloak'. For the former conclusion also would be true, but it has not been proved; we need a further question to show that 'doublet' means the same thing, in order to satisfy any one who asks why you think your point proved.

Fallacies that depend on Accident are clear cases of *ignoratio elenchi* when once 'proof' has been defined. For the same definition ought to hold good of 'refutation' too, except that a mention of 'the contradictory' is here added: for a refutation is a proof of the contradictory. If, then, there is no proof as regards an accident of anything, there is no refutation. For supposing, when A and B are, C must necessarily be, and C is white, there is no necessity for it to be white on account of the syllogism. So, if the triangle has its angles equal to two right-angles, and it happens to be a figure, or the simplest element or starting point, it is not because it is a figure or a starting point or simplest element that it has this character. For the demonstration proves the point about it not qua figure or qua simplest element, but qua triangle. Likewise also in other cases. If, then, refutation is a proof, an argument which argued per accidens could not be a refutation. It is, however, just in this that the experts and men of science generally suffer refutation at the hand of the unscientific: for the latter meet the scientists with reasonings constituted per accidens; and the scientists for lack of the power to draw distinctions either say 'Yes' to their questions, or else people suppose them to have said 'Yes', although they have not.

Those that depend upon whether something is said in a certain respect only or said absolutely, are clear cases of *ignoratio elenchi* because the affirmation and the denial are not concerned with the same point. For of 'white in a certain respect' the negation is 'not white in a certain respect', while of 'white absolutely' it is 'not white, absolutely'. If, then, a man treats the admission that a thing is 'white in a certain respect' as though it were said to be white absolutely, he does not effect a refutation, but merely appears to do so owing to ignorance of what refutation is.

The clearest cases of all, however, are those that were previously described' as depending upon the definition of a 'refutation': and this is also why they were called by that name. For the appearance of a refutation is produced because of the omission in the definition, and if we divide fallacies in the above manner, we ought to set 'Defective definition' as a common mark upon them all.

Those that depend upon the assumption of the original point and upon stating as the cause what is not the cause, are clearly shown to be cases of *ignoratio elenchi* through the definition thereof. For the conclusion ought to come about 'because these things are so', and this does not happen where the premisses are not causes of it: and again it should come about without taking into account the original point, and this is not the case with those arguments which depend upon begging the original point.

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conclusion ought to come about 'because these things are so', and this does not happen where the premisses are not causes of it: and again it should come about without taking into account the original point, and this is not the case with those arguments which depend upon begging the original point.

Those that depend upon the consequent are a branch of Accident: for the consequent is an accident, only it differs from the accident in this, that you may secure an admission of the accident in the case of one thing only (e.g. the identity of a yellow thing and honey and of a white thing and swan), whereas the consequent always involves more than one thing: for we claim that things that are the same as one and the same thing are also the same as one another, and this is the ground of a refutation dependent on the consequent. It is, however, not always true, e.g. suppose that A and B are the same as C per accidens; for both 'snow' and the 'swan' are the same as something white'. Or again, as in Melissus' argument, a man assumes that to 'have been generated' and to 'have a beginning' are the same thing, or to 'become equal' and to 'assume the same magnitude'. For because what has been generated has a beginning, he claims also that what has a beginning has been generated, and argues as though both what has been generated and what is finite were the same because each has a beginning. Likewise also in the case of things that are made equal he assumes that if things that assume one and the same magnitude become equal, then also things that become equal assume one magnitude: i.e. he assumes the consequent. Inasmuch, then, as a refutation depending on accident consists in ignorance of what a refutation is, clearly so also does a refutation depending on the consequent. We shall have further to examine this in another way as well.

Those fallacies that depend upon the making of several questions into one consist in our failure to dissect the definition of 'proposition'. For a proposition is a single statement about a single thing. For the same definition applies to 'one single thing only' and to the 'thing', simply, e.g. to 'man' and to 'one single man only' and likewise also in other cases. If, then, a 'single proposition' be one which claims a single thing of a single thing, a 'proposition', simply, will also be the putting of a question of that kind. Now since a proof starts from propositions and refutation is a proof, refutation, too, will start from propositions. If, then, a proposition is a single statement about a single thing, it is obvious that this fallacy too consists in ignorance of what a refutation is: for in it what is not a proposition appears to be one. If, then, the answerer has returned an answer as though to a single question, there will be a refutation; while if he has returned one not really but apparently, there will be an apparent refutation of his thesis. All the types of fallacy, then, fall under ignorance of what a refutation is, some of them because the contradiction, which is the distinctive mark of a refutation, is merely apparent, and the rest failing to conform to the definition of a proof.

The deception comes about in the case of arguments that depend on ambiguity of words and of phrases because we are unable to divide the ambiguous term (for some terms it is not easy to divide, e.g. 'unity', 'being', and 'sameness'), while in those that depend on combination and division, it is because we suppose that it makes no difference whether the phrase be combined or divided, as is indeed the case with most phrases. Likewise also with those that depend on accent: for the lowering or raising of the voice upon a phrase is thought not to alter its meaning-with any phrase, or not with many. With those that depend on the of expression it is because of the likeness of expression. For it is hard to distinguish what kind of things are signified by the same and what by different kinds of expression: for a man who can do this is practically next door to the understanding of the truth. A special reason why a man is liable to be hurried into assent to the fallacy is that we suppose every predicate of everything to be an individual thing, and we understand it as being one with the thing: and we therefore treat it as a substance: for it is to that which is one with a thing or substance, as also to substance itself, that 'individually' and 'being' are deemed to belong in the fullest sense. For this reason, too, this type of fallacy is to be ranked among those that depend on language; in the first place, because the deception is effected the more readily when we are inquiring into a problem in company with others than when we do so by ourselves (for an inquiry with another person is carried on by means of speech, whereas an inquiry by oneself is carried on quite as much by means of the object itself); secondly a man is liable to be deceived, even when inquiring by himself, when he takes speech as the basis of his inquiry: moreover the deception arises out of the likeness (of two different things), and the likeness arises out of the language. With those fallacies that depend upon Accident, deception comes about because we cannot distinguish the sameness and otherness of terms, i.e. their unity and multiplicity, or what kinds of predicate have all the same accidents as their subject. Likewise also with those that depend on the Consequent: for the consequent is a branch of Accident. Moreover, in many cases appearances point to this-and the claim is made that if is inseparable from B, so also is B from With those that depend upon an imperfection in the definition of a refutation, and with those that depend upon the difference between a qualified and an absolute statement, the deception consists in the smallness of the difference involved; for we treat the limitation to the particular thing or respect or manner or time as adding nothing to the meaning, and so grant the statement universally. Likewise also in the case of those that assume the original point, and those of false cause, and all that treat a number of questions as one: for in all of them the deception lies in the smallness of the difference: for our failure to be quite exact in our definition of 'premiss' and of 'proof' is due to the aforesaid reason.

Since we know on how many points apparent syllogisms depend, we know also on how many sophistical syllogisms and refutations may depend. By

a sophistical refutation and syllogism I mean not only a syllogism or refutation which appears to be valid but is not, but also one which, though it is valid, only appears to be appropriate to the thing in question. These are those which fail to refute and prove people to be ignorant according to the nature of the thing in question, which was the function of the art of examination. Now the art of examining is a branch of dialectic: and this may prove a false conclusion because of the ignorance of the answerer. Sophistic refutations on the other hand, even though they prove the contradictory of his thesis, do not make clear whether he is ignorant: for sophists entangle the scientist as well with these arguments.

That we know them by the same line of inquiry is clear: for the same considerations which make it appear to an audience that the points required for the proof were asked in the questions and that the conclusion was proved, would make the answerer think so as well, so that false proof will occur through all or some of these means: for what a man has not been asked but thinks he has granted, he would also grant if he were asked. Of course, in some cases the moment we add the missing question, we also show up its falsity, e.g. in fallacies that depend on language and on solecism. If then, fallacious proofs of the contradictory of a thesis depend on their appearing to refute, it is clear that the considerations on which both proofs of false conclusions and an apparent refutation depend must be the same in number. Now an apparent refutation depends upon the elements involved in a genuine one: for the failure of one or other of these must make the refutation merely apparent, e.g. that which depends on the failure of the conclusion to follow from the argument (the argument ad impossibile) and that which treats two questions as one and so depends upon a flaw in the premiss, and that which depends on the substitution of an accident for an essential attribute, and a branch of the last—that which depends upon the consequent: more over, the conclusion may follow not in fact but only verbally: then, instead of proving the contradictory universally and in the same respect and relation and manner, the fallacy may be dependent on some limit of extent or on one or other of these qualifications: moreover, there is the assumption of the original point to be proved, in violation of the clause 'without reckoning in the original point'. Thus we should have the number of considerations on which the fallacious proofs depend: for they could not depend on more, but all will depend on the points aforesaid.

A sophistical refutation is a refutation not absolutely but relatively to some one: and so is a proof, in the same way. For unless that which depends upon ambiguity assumes that the ambiguous term has a single meaning, and that which depends on like verbal forms assumes that substance is the only category, and the rest in the same way, there will be neither refutations nor proofs, either absolutely or relatively to the answerer: whereas if they do assume these things, they will stand, relatively to the answerer; but absolutely they will not stand: for they have not secured a statement that does have a single meaning, but only one that appears to have, and that only from this particular man.

The number of considerations on which depend the refutations of those who are refuted, we ought not to try to grasp without a knowledge of everything that is. This, however, is not the province of any special study: for possibly the sciences are infinite in number, so that obviously demonstrations may be infinite too. Now refutations may be true as well as false: for whenever it is possible to demonstrate something, it is also possible to refute the man who maintains the contradictory of the truth; e.g. if a man has stated that the diagonal is commensurate with the side of the square, one might refute him by demonstrating that it is incommensurate. Accordingly, to exhaust all possible refutations we shall have to have scientific knowledge of everything: for some refutations depend upon the principles that rule in geometry and the conclusions that follow from these, others upon those that rule in medicine, and others upon those of the other sciences. For the matter of that, the false refutations likewise belong to the number of the infinite: for according to every art there is false proof, e.g. according to geometry there is false geometrical proof, and according to medicine there is false medical proof. By 'according to the art', I mean 'according to the principles of it'. Clearly, then, it is not of all refutations, but only of those that depend upon dialectic that we need to grasp the common-place rules: for these stand in a common relation to every art and faculty. And as regards the refutation that is according to one or other of the particular sciences it is the task of that particular scientist to examine whether it is merely apparent without being real, and, if it be real, what is the reason for it: whereas it is the business of dialecticians so to examine the refutation that proceeds from the common first principles that fall under no particular special study. For if we grasp the startingpoints of the accepted proofs on any subject whatever we grasp those of the refutations current on that subject. For a refutation is the proof of the contradictory of a given thesis, so that either one or two proofs of the contradictory constitute a refutation. We grasp, then, the number of considerations on which all such depend: if, however, we grasp this, we also grasp their solutions as well; for the objections to these are the solutions of them. We also grasp the number of considerations on which those refutations depend, that are merely apparent-apparent, I mean, not to everybody, but to people of a certain stamp; for it is an indefinite task if one is to inquire how many are the considerations that make them apparent to the man in the street. Accordingly it is clear that the dialectician's business is to be able to grasp on how many considerations depends the formation, through the common first principles, of a refutation that is either real or apparent, i.e. either dialectical or apparently dialectical, or suitable for an examination.

It is no true distinction between arguments which some people draw

when they say that some arguments are directed against the expression, and others against the thought expressed: for it is absurd to suppose that some arguments are directed against the expression and others against the thought, and that they are not the same. For what is failure to direct an argument against the thought except what occurs whenever a man does not in using the expression think it to be used in his question in the same sense in which the person questioned granted it? And this is the same thing as to direct the argument against the expression. On the other hand, it is directed against the thought whenever a man uses the expression in the same sense which the answerer had in mind when he granted it. If now any (i.e. both the questioner and the person questioned), in dealing with an expression with more than one meaning, were to suppose it to have one meaning-as e.g. it may be that 'Being' and 'One' have many meanings, and yet both the answerer answers and the questioner puts his question supposing it to be one, and the argument is to the effect that 'All things are one'-will this discussion be directed any more against the expression than against the thought of the person questioned? If, on the other hand, one of them supposes the expression to have many meanings, it is clear that such a discussion will not be directed against the thought. Such being the meanings of the phrases in question, they clearly cannot describe two separate classes of argument. For, in the first place, it is possible for any such argument as bears more than one meaning to be directed against the expression and against the thought, and next it is possible for any argument whatsoever; for the fact of being directed against the thought consists not in the nature of the argument, but in the special attitude of the answerer towards the points he concedes. Next, all of them may be directed to the expression. For 'to be directed against the expression' means in this doctrine 'not to be directed against the thought'. For if not all are directed against either expression or thought, there will be certain other arguments directed neither against the expression nor against the thought, whereas they say that all must be one or the other, and divide them all as directed either against the expression or against the thought, while others (they say) there are none. But in point of fact those that depend on mere expression are only a branch of those syllogisms that depend on a multiplicity of meanings. For the absurd statement has actually been made that the description 'dependent on mere expression' describes all the arguments that depend on language: whereas some of these are fallacies not because the answerer adopts a particular attitude towards them, but because the argument itself involves the asking of a question such as bears more than one meaning.

It is, too, altogether absurd to discuss Refutation without first discussing Proof: for a refutation is a proof, so that one ought to discuss proof as well before describing false refutation: for a refutation of that kind is a merely apparent proof of the contradictory of a thesis. Accordingly, the reason of the falsity will be either in the proof or in the contradiction (for mention of the 'contradiction' must be added), while sometimes it is in both, if the refutation be merely apparent. In the argument that speaking of the silent is possible it lies in the contradiction, not in the proof;

in the argument that one can give what one does not possess, it lies in both; in the proof that Homer's poem is a figure through its being a cycle it lies in the proof. An argument that does not fail in either respect is a true proof.

But, to return to the point whence our argument digressed, are mathematical reasonings directed against the thought, or not? And if any one thinks 'triangle' to be a word with many meanings, and granted it in some different sense from the figure which was proved to contain two right angles, has the questioner here directed his argument against the thought of the former or not?

Moreover, if the expression bears many senses, while the answerer does not understand or suppose it to have them, surely the questioner here has directed his argument against his thought! Or how else ought he to put his question except by suggesting a distinction-suppose one's question to be speaking of the silent possible or not?'-as follows, 'Is the answer "No" in one sense, but "Yes" in another?' If, then, any one were to answer that it was not possible in any sense and the other were to argue that it was, has not his argument been directed against the thought of the answerer? Yet his argument is supposed to be one of those that depend on the expression. There is not, then, any definite kind of arguments that is directed against the thought. Some arguments are, indeed, directed against the expression: but these are not all even apparent refutations, let alone all refutations. For there are also apparent refutations which do not depend upon language, e.g. those that depend upon accident, and others.

If, however, any one claims that one should actually draw the distinction, and say, 'By "speaking of the silent" I mean, in one sense this and in the other sense that', surely to claim this is in the first place absurd (for sometimes the questioner does not see the ambiguity of his question, and he cannot possibly draw a distinction which he does not think to be there): in the second place, what else but this will didactic argument be? For it will make manifest the state of the case to one who has never considered, and does not know or suppose that there is any other meaning but one. For what is there to prevent the same thing also happening to us in cases where there is no double meaning? 'Are the units in four equal to the twos? Observe that the twos are contained in four in one sense in this way, in another sense in that'. Also, 'Is the knowledge of contraries one or not? Observe that some contraries are known, while others are unknown'. Thus the man who makes this claim seems to be unaware of the difference between didactic and dialectical argument, and of the fact that while he who argues didactically should not ask questions but make things clear himself, the other should merely ask questions.

Moreover, to claim a 'Yes' or 'No' answer is the business not of a man who is showing something, but of one who is holding an

examination. For the art of examining is a branch of dialectic and has in view not the man who has knowledge, but the ignorant pretender. He, then, is a dialectician who regards the common principles with their application to the particular matter in hand, while he who only appears to do this is a sophist. Now for contentious and sophistical reasoning: (1) one such is a merely apparent reasoning, on subjects on which dialectical reasoning is the proper method of examination, even though its conclusion be true: for it misleads us in regard to the cause: also (2) there are those misreasonings which do not conform to the line of inquiry proper to the particular subject, but are generally thought to conform to the art in question. For false diagrams of geometrical figures are not contentious (for the resulting fallacies conform to the subject of the art)-any more than is any false diagram that may be offered in proof of a truth-e.g. Hippocrates' figure or the squaring of the circle by means of the lunules. But Bryson's method of squaring the circle, even if the circle is thereby squared, is still sophistical because it does not conform to the subject in hand. So, then, any merely apparent reasoning about these things is a contentious argument, and any reasoning that merely appears to conform to the subject in hand, even though it be genuine reasoning, is a contentious argument: for it is merely apparent in its conformity to the subject-matter, so that it is deceptive and plays foul. For just as a foul in a race is a definite type of fault, and is a kind of foul fighting, so the art of contentious reasoning is foul fighting in disputation: for in the former case those who are resolved to win at all costs snatch at everything, and so in the latter case do contentious reasoners. Those, then, who do this in order to win the mere victory are generally considered to be contentious and quarrelsome persons, while those who do it to win a reputation with a view to making money are sophistical. For the art of sophistry is, as we said, 'a kind of art of money-making from a merely apparent wisdom, and this is why they aim at a merely apparent demonstration: and quarrelsome persons and sophists both employ the same arguments, but not with the same motives: and the same argument will be sophistical and contentious, but not in the same respect; rather, it will be contentious in so far as its aim is an apparent victory, while in so far as its aim is an apparent wisdom, it will be sophistical: for the art of sophistry is a certain appearance of wisdom without the reality. The contentious argument stands in somewhat the same relation to the dialectical as the drawer of false diagrams to the geometrician; for it beguiles by misreasoning from the same principles as dialectic uses, just as the drawer of a false diagram beguiles the geometrician. But whereas the latter is not a contentious reasoner, because he bases his false diagram on the principles and conclusions that fall under the art of geometry, the argument which is subordinate to the principles of dialectic will yet clearly be contentious as regards other subjects. Thus, e.g. though the squaring of the circle by means of the lunules is not contentious, Bryson's solution is contentious: and the former argument cannot be adapted to any subject except geometry, because it proceeds from principles that are peculiar to geometry, whereas the latter can be adapted as an argument against all the number of people who do not know what is or is not possible in each particular

context: for it will apply to them all. Or there is the method whereby Antiphon squared the circle. Or again, an argument which denied that it was better to take a walk after dinner, because of Zeno's argument, would not be a proper argument for a doctor, because Zeno's argument is of general application. If, then, the relation of the contentious argument to the dialectical were exactly like that of the drawer of false diagrams to the geometrician, a contentious argument upon the aforesaid subjects could not have existed. But, as it is, the dialectical argument is not concerned with any definite kind of being, nor does it show anything, nor is it even an argument such as we find in the general philosophy of being. For all beings are not contained in any one kind, nor, if they were, could they possibly fall under the same principles. Accordingly, no art that is a method of showing the nature of anything proceeds by asking questions: for it does not permit a man to grant whichever he likes of the two alternatives in the question: for they will not both of them yield a proof. Dialectic, on the other hand, does proceed by questioning, whereas if it were concerned to show things, it would have refrained from putting questions, even if not about everything, at least about the first principles and the special principles that apply to the particular subject in hand. For suppose the answerer not to grant these, it would then no longer have had any grounds from which to argue any longer against the objection. Dialectic is at the same time a mode of examination as well. For neither is the art of examination an accomplishment of the same kind as geometry, but one which a man may possess, even though he has not knowledge. For it is possible even for one without knowledge to hold an examination of one who is without knowledge, if also the latter grants him points taken not from thing that he knows or from the special principles of the subject under discussion but from all that range of consequences attaching to the subject which a man may indeed know without knowing the theory of the subject, but which if he do not know, he is bound to be ignorant of the theory. So then clearly the art of examining does not consist in knowledge of any definite subject. For this reason, too, it deals with everything: for every 'theory' of anything employs also certain common principles. Hence everybody, including even amateurs, makes use in a way of dialectic and the practice of examining: for all undertake to some extent a rough trial of those who profess to know things. What serves them here is the general principles: for they know these of themselves just as well as the scientist, even if in what they say they seem to the latter to go wildly astray from them. All, then, are engaged in refutation; for they take a hand as amateurs in the same task with which dialectic is concerned professionally; and he is a dialectician who examines by the help of a theory of reasoning. Now there are many identical principles which are true of everything, though they are not such as to constitute a particular nature, i.e. a particular kind of being, but are like negative terms, while other principles are not of this kind but are special to particular subjects; accordingly it is possible from these general principles to hold an examination on everything, and that there should be a definite art of so doing, and, moreover, an art which is not of the same kind as those which demonstrate. This is why the contentious reasoner does not stand in

the same condition in all respects as the drawer of a false diagram: for the contentious reasoner will not be given to misreasoning from any definite class of principles, but will deal with every class.

These, then, are the types of sophistical refutations: and that it belongs to the dialectician to study these, and to be able to effect them, is not difficult to see: for the investigation of premisses comprises the whole of this study.

12

So much, then, for apparent refutations. As for showing that the answerer is committing some fallacy, and drawing his argument into paradox-for this was the second item of the sophist's programme-in the first place, then, this is best brought about by a certain manner of questioning and through the question. For to put the question without framing it with reference to any definite subject is a good bait for these purposes: for people are more inclined to make mistakes when they talk at large, and they talk at large when they have no definite subject before them. Also the putting of several questions, even though the position against which one is arguing be quite definite, and the claim that he shall say only what he thinks, create abundant opportunity for drawing him into paradox or fallacy, and also, whether to any of these questions he replies 'Yes' or replies 'No', of leading him on to statements against which one is well off for a line of attack. Nowadays, however, men are less able to play foul by these means than they were formerly: for people rejoin with the question, 'What has that to do with the original subject?' It is, too, an elementary rule for eliciting some fallacy or paradox that one should never put a controversial question straight away, but say that one puts it from the wish for information: for the process of inquiry thus invited gives room for an attack.

A rule specially appropriate for showing up a fallacy is the sophistic rule, that one should draw the answerer on to the kind of statements against which one is well supplied with arguments: this can be done both properly and improperly, as was said before.' Again, to draw a paradoxical statement, look and see to what school of philosophers the person arguing with you belongs, and then question him as to some point wherein their doctrine is paradoxical to most people: for with every school there is some point of that kind. It is an elementary rule in these matters to have a collection of the special 'theses' of the various schools among your propositions. The solution recommended as appropriate here, too, is to point out that the paradox does not come about because of the argument: whereas this is what his opponent always really wants.

Moreover, argue from men's wishes and their professed opinions. For people do not wish the same things as they say they wish: they say what will look best, whereas they wish what appears to be to their interest: e.g. they say that a man ought to die nobly rather than to live in pleasure, and to live in honest poverty rather than in dishonourable riches; but they wish the opposite. Accordingly, a man

who speaks according to his wishes must be led into stating the professed opinions of people, while he who speaks according to these must be led into admitting those that people keep hidden away: for in either case they are bound to introduce a paradox; for they will speak contrary either to men's professed or to their hidden opinions.

The widest range of common-place argument for leading men into paradoxical statement is that which depends on the standards of Nature and of the Law: it is so that both Callicles is drawn as arguing in the *Gorgias*, and that all the men of old supposed the result to come about: for nature (they said) and law are opposites, and justice is a fine thing by a legal standard, but not by that of nature. Accordingly, they said, the man whose statement agrees with the standard of nature you should meet by the standard of the law, but the man who agrees with the law by leading him to the facts of nature: for in both ways paradoxical statements may be committed. In their view the standard of nature was the truth, while that of the law was the opinion held by the majority. So that it is clear that they, too, used to try either to refute the answerer or to make him make paradoxical statements, just as the men of to-day do as well.

Some questions are such that in both forms the answer is paradoxical; e.g. 'Ought one to obey the wise or one's father?' and 'Ought one to do what is expedient or what is just?' and 'Is it preferable to suffer injustice or to do an injury?' You should lead people, then, into views opposite to the majority and to the philosophers; if any one speaks as do the expert reasoners, lead him into opposition to the majority, while if he speaks as do the majority, then into opposition to the reasoners. For some say that of necessity the happy man is just, whereas it is paradoxical to the many that a king should be happy. To lead a man into paradoxes of this sort is the same as to lead him into the opposition of the standards of nature and law: for the law represents the opinion of the majority, whereas philosophers speak according to the standard of nature and the truth.

13

Paradoxes, then, you should seek to elicit by means of these common-place rules. Now as for making any one babble, we have already said what we mean by 'to babble'. This is the object in view in all arguments of the following kind: If it is all the same to state a term and to state its definition, the 'double' and 'double of half' are the same: if then 'double' be the 'double of half', it will be the 'double of half of half'. And if, instead of 'double', 'double of half' be again put, then the same expression will be repeated three times, 'double of half of half of half'. Also 'desire is of the pleasant, isn't it?' desire is conation for the pleasant: accordingly, 'desire' is 'conation for the pleasant for the pleasant'.

All arguments of this kind occur in dealing (1) with any relative terms which not only have relative genera, but are also themselves relative, and are rendered in relation to one and the same thing, as

e.g. conation is conation for something, and desire is desire of something, and double is double of something, i.e. double of half: also in dealing (2) with any terms which, though they be not relative terms at all, yet have their substance, viz. the things of which they are the states or affections or what not, indicated as well in their definition, they being predicated of these things. Thus e.g. 'odd' is a 'number containing a middle': but there is an 'odd number': therefore there is a 'number-containing-a-middle number'. Also, if snubness be a concavity of the nose, and there be a snub nose, there is therefore a 'concave-nose nose'.

People sometimes appear to produce this result, without really producing it, because they do not add the question whether the expression 'double', just by itself, has any meaning or no, and if so, whether it has the same meaning, or a different one; but they draw their conclusion straight away. Still it seems, inasmuch as the word is the same, to have the same meaning as well.

14

We have said before what kind of thing 'solecism' is.' It is possible both to commit it, and to seem to do so without doing so, and to do so without seeming to do so. Suppose, as Protagoras used to say that *menis* ('wrath') and *pelex* ('helmet') are masculine: according to him a man who calls wrath a 'deconstructress' (*oulomenen*) commits a solecism, though he does not seem to do so to other people, where he who calls it a 'destructor' (*oulomenon*) commits no solecism though he seems to do so. It is clear, then, that any one could produce this effect by art as well: and for this reason many arguments seem to lead to solecism which do not really do so, as happens in the case of refutations.

Almost all apparent solecisms depend upon the word 'this' (*tode*), and upon occasions when the inflection denotes neither a masculine nor a feminine object but a neuter. For 'he' (*outos*) signifies a masculine, and 'she' (*aute*) feminine; but 'this' (*touto*), though meant to signify a neuter, often also signifies one or other of the former: e.g. 'What is this?' 'It is Calliope'; 'it is a log'; 'it is Coriscus'. Now in the masculine and feminine the inflections are all different, whereas in the neuter some are and some are not. Often, then, when 'this' (*touto*) has been granted, people reason as if 'him' (*touton*) had been said: and likewise also they substitute one inflection for another. The fallacy comes about because 'this' (*touto*) is a common form of several inflections: for 'this' signifies sometimes 'he' (*outos*) and sometimes 'him' (*touton*). It should signify them alternately; when combined with 'is' (*esti*) it should be 'he', while with 'being' it should be 'him': e.g. 'Coriscus (*Kopiskos*) is', but 'being Coriscus' (*Kopiskon*). It happens in the same way in the case of feminine nouns as well, and in the case of the so-called 'chattels' that have feminine or masculine designations. For only those names which end in o and n, have the designation proper to a chattel, e.g. *xulon* ('log'), *schoinion* ('rope'); those which do not end so have that of a masculine or feminine object, though some of

them we apply to chattels: e.g. askos ('wineskin') is a masculine noun, and kline ('bed') a feminine. For this reason in cases of this kind as well there will be a difference of the same sort between a construction with 'is' (esti) or with 'being' (to einai). Also, Solecism resembles in a certain way those refutations which are said to depend on the like expression of unlike things. For, just as there we come upon a material solecism, so here we come upon a verbal: for 'man' is both a 'matter' for expression and also a 'word': and so is white'.

It is clear, then, that for solecisms we must try to construct our argument out of the aforesaid inflections.

These, then, are the types of contentious arguments, and the subdivisions of those types, and the methods for conducting them aforesaid. But it makes no little difference if the materials for putting the question be arranged in a certain manner with a view to concealment, as in the case of dialectics. Following then upon what we have said, this must be discussed first.

15

With a view then to refutation, one resource is length-for it is difficult to keep several things in view at once; and to secure length the elementary rules that have been stated before' should be employed. One resource, on the other hand, is speed; for when people are left behind they look ahead less. Moreover, there is anger and contentiousness, for when agitated everybody is less able to take care of himself. Elementary rules for producing anger are to make a show of the wish to play foul, and to be altogether shameless. Moreover, there is the putting of one's questions alternately, whether one has more than one argument leading to the same conclusion, or whether one has arguments to show both that something is so, and that it is not so: for the result is that he has to be on his guard at the same time either against more than one line, or against contrary lines, of argument. In general, all the methods described before of producing concealment are useful also for purposes of contentious argument: for the object of concealment is to avoid detection, and the object of this is to deceive.

To counter those who refuse to grant whatever they suppose to help one's argument, one should put the question negatively, as though desirous of the opposite answer, or at any rate as though one put the question without prejudice; for when it is obscure what answer one wants to secure, people are less refractory. Also when, in dealing with particulars, a man grants the individual case, when the induction is done you should often not put the universal as a question, but take it for granted and use it: for sometimes people themselves suppose that they have granted it, and also appear to the audience to have done so, for they remember the induction and assume that the questions could not have been put for nothing. In cases where there is no term to indicate the universal, still you should avail yourself of the resemblance of the particulars to suit your purpose; for resemblance

often escapes detection. Also, with a view to obtaining your premiss, you ought to put it in your question side by side with its contrary. E.g. if it were necessary to secure the admission that 'A man should obey his father in everything', ask 'Should a man obey his parents in everything, or disobey them in everything?'; and to secure that 'A number multiplied by a large number is a large number', ask 'Should one agree that it is a large number or a small one?' For then, if compelled to choose, one will be more inclined to think it a large one: for the placing of their contraries close beside them makes things look big to men, both relatively and absolutely, and worse and better.

A strong appearance of having been refuted is often produced by the most highly sophistical of all the unfair tricks of questioners, when without proving anything, instead of putting their final proposition as a question, they state it as a conclusion, as though they had proved that 'Therefore so-and-so is not true'

It is also a sophistical trick, when a paradox has been laid down, first to propose at the start some view that is generally accepted, and then claim that the answerer shall answer what he thinks about it, and to put one's question on matters of that kind in the form 'Do you think that...?' For then, if the question be taken as one of the premisses of one's argument, either a refutation or a paradox is bound to result; if he grants the view, a refutation; if he refuses to grant it or even to admit it as the received opinion, a paradox; if he refuses to grant it, but admits that it is the received opinion, something very like a refutation, results.

Moreover, just as in rhetorical discourses, so also in those aimed at refutation, you should examine the discrepancies of the answerer's position either with his own statements, or with those of persons whom he admits to say and do aright, moreover with those of people who are generally supposed to bear that kind of character, or who are like them, or with those of the majority or of all men. Also just as answerers, too, often, when they are in process of being confuted, draw a distinction, if their confutation is just about to take place, so questioners also should resort to this from time to time to counter objectors, pointing out, supposing that against one sense of the words the objection holds, but not against the other, that they have taken it in the latter sense, as e.g. Cleophon does in the *Mandrobulus*. They should also break off their argument and cut down their other lines of attack, while in answering, if a man perceives this being done beforehand, he should put in his objection and have his say first. One should also lead attacks sometimes against positions other than the one stated, on the understood condition that one cannot find lines of attack against the view laid down, as Lycophron did when ordered to deliver a eulogy upon the lyre. To counter those who demand 'Against what are you directing your effort?', since one is generally thought bound to state the charge made, while, on the other hand, some ways of stating it make the defence too easy, you should state as your aim only the general result that always happens in refutations, namely the contradiction of his

thesis -viz. that your effort is to deny what he has affirmed, or to affirm what he denied: don't say that you are trying to show that the knowledge of contraries is, or is not, the same. One must not ask one's conclusion in the form of a premiss, while some conclusions should not even be put as questions at all; one should take and use it as granted.

16

We have now therefore dealt with the sources of questions, and the methods of questioning in contentious disputations: next we have to speak of answering, and of how solutions should be made, and of what requires them, and of what use is served by arguments of this kind.

The use of them, then, is, for philosophy, twofold. For in the first place, since for the most part they depend upon the expression, they put us in a better condition for seeing in how many senses any term is used, and what kind of resemblances and what kind of differences occur between things and between their names. In the second place they are useful for one's own personal researches; for the man who is easily committed to a fallacy by some one else, and does not perceive it, is likely to incur this fate of himself also on many occasions. Thirdly and lastly, they further contribute to one's reputation, viz. the reputation of being well trained in everything, and not inexperienced in anything: for that a party to arguments should find fault with them, if he cannot definitely point out their weakness, creates a suspicion, making it seem as though it were not the truth of the matter but merely inexperience that put him out of temper.

Answerers may clearly see how to meet arguments of this kind, if our previous account was right of the sources whence fallacies came, and also our distinctions adequate of the forms of dishonesty in putting questions. But it is not the same thing take an argument in one's hand and then to see and solve its faults, as it is to be able to meet it quickly while being subjected to questions: for what we know, we often do not know in a different context. Moreover, just as in other things speed is enhanced by training, so it is with arguments too, so that supposing we are unpractised, even though a point be clear to us, we are often too late for the right moment. Sometimes too it happens as with diagrams; for there we can sometimes analyse the figure, but not construct it again: so too in refutations, though we know the thing on which the connexion of the argument depends, we still are at a loss to split the argument apart.

17

First then, just as we say that we ought sometimes to choose to prove something in the general estimation rather than in truth, so also we have sometimes to solve arguments rather in the general estimation than according to the truth. For it is a general rule in fighting contentious persons, to treat them not as refuting, but as merely appearing to refute: for we say that they don't really prove their case, so that our object in correcting them must be to dispel

the appearance of it. For if refutation be an unambiguous contradiction arrived at from certain views, there could be no need to draw distinctions against amphiboly and ambiguity: they do not effect a proof. The only motive for drawing further distinctions is that the conclusion reached looks like a refutation. What, then, we have to beware of, is not being refuted, but seeming to be, because of course the asking of amphibolies and of questions that turn upon ambiguity, and all the other tricks of that kind, conceal even a genuine refutation, and make it uncertain who is refuted and who is not. For since one has the right at the end, when the conclusion is drawn, to say that the only denial made of One's statement is ambiguous, no matter how precisely he may have addressed his argument to the very same point as oneself, it is not clear whether one has been refuted: for it is not clear whether at the moment one is speaking the truth. If, on the other hand, one had drawn a distinction, and questioned him on the ambiguous term or the amphiboly, the refutation would not have been a matter of uncertainty. Also what is incidentally the object of contentious arguers, though less so nowadays than formerly, would have been fulfilled, namely that the person questioned should answer either 'Yes' or 'No': whereas nowadays the improper forms in which questioners put their questions compel the party questioned to add something to his answer in correction of the faultiness of the proposition as put: for certainly, if the questioner distinguishes his meaning adequately, the answerer is bound to reply either 'Yes' or 'No'.

If any one is going to suppose that an argument which turns upon ambiguity is a refutation, it will be impossible for an answerer to escape being refuted in a sense: for in the case of visible objects one is bound of necessity to deny the term one has asserted, and to assert what one has denied. For the remedy which some people have for this is quite unavailing. They say, not that Coriscus is both musical and unmusical, but that this Coriscus is musical and this Coriscus unmusical. But this will not do, for to say 'this Coriscus is unmusical', or 'musical', and to say 'this Coriscus' is so, is to use the same expression: and this he is both affirming and denying at once. 'But perhaps they do not mean the same.' Well, nor did the simple name in the former case: so where is the difference? If, however, he is to ascribe to the one person the simple title 'Coriscus', while to the other he is to add the prefix 'one' or 'this', he commits an absurdity: for the latter is no more applicable to the one than to the other: for to whichever he adds it, it makes no difference.

All the same, since if a man does not distinguish the senses of an amphiboly, it is not clear whether he has been confuted or has not been confuted, and since in arguments the right to distinguish them is granted, it is evident that to grant the question simply without drawing any distinction is a mistake, so that, even if not the man himself, at any rate his argument looks as though it had been refuted. It often happens, however, that, though they see the amphiboly, people hesitate to draw such distinctions, because of the dense crowd of persons who propose questions of the kind, in order that they may

not be thought to be obstructionists at every turn: then, though they would never have supposed that that was the point on which the argument turned, they often find themselves faced by a paradox. Accordingly, since the right of drawing the distinction is granted, one should not hesitate, as has been said before.

If people never made two questions into one question, the fallacy that turns upon ambiguity and amphiboly would not have existed either, but either genuine refutation or none. For what is the difference between asking 'Are Callias and Themistocles musical?' and what one might have asked if they, being different, had had one name? For if the term applied means more than one thing, he has asked more than one question. If then it be not right to demand simply to be given a single answer to two questions, it is evident that it is not proper to give a simple answer to any ambiguous question, not even if the predicate be true of all the subjects, as some claim that one should. For this is exactly as though he had asked 'Are Coriscus and Callias at home or not at home?', supposing them to be both in or both out: for in both cases there is a number of propositions: for though the simple answer be true, that does not make the question one. For it is possible for it to be true to answer even countless different questions when put to one, all together with either a 'Yes' or a 'No': but still one should not answer them with a single answer: for that is the death of discussion. Rather, the case is like as though different things has actually had the same name applied to them. If then, one should not give a single answer to two questions, it is evident that we should not say simply 'Yes' or 'No' in the case of ambiguous terms either: for the remark is simply a remark, not an answer at all, although among disputants such remarks are loosely deemed to be answers, because they do not see what the consequence is.

As we said, then, inasmuch as certain refutations are generally taken for such, though not such really, in the same way also certain solutions will be generally taken for solutions, though not really such. Now these, we say, must sometimes be advanced rather than the true solutions in contentious reasonings and in the encounter with ambiguity. The proper answer in saying what one thinks is to say 'Granted'; for in that way the likelihood of being refuted on a side issue is minimized. If, on the other hand, one is compelled to say something paradoxical, one should then be most careful to add that 'it seems' so: for in that way one avoids the impression of being either refuted or paradoxical. Since it is clear what is meant by 'begging the original question', and people think that they must at all costs overthrow the premisses that lie near the conclusion, and plead in excuse for refusing to grant him some of them that he is begging the original question, so whenever any one claims from us a point such as is bound to follow as a consequence from our thesis, but is false or paradoxical, we must plead the same: for the necessary consequences are generally held to be a part of the thesis itself. Moreover, whenever the universal has been secured not under a definite name, but by a comparison of instances, one should say that the questioner assumes it not in the sense in which it was granted nor in which he proposed it in the premiss: for this too is a point upon which a

refutation often depends.

If one is debarred from these defences one must pass to the argument that the conclusion has not been properly shown, approaching it in the light of the aforesaid distinction between the different kinds of fallacy.

In the case, then, of names that are used literally one is bound to answer either simply or by drawing a distinction: the tacit understandings implied in our statements, e.g. in answer to questions that are not put clearly but elliptically-it is upon this that the consequent refutation depends. For example, 'Is what belongs to Athenians the property of Athenians?' Yes. 'And so it is likewise in other cases. But observe; man belongs to the animal kingdom, doesn't he?' Yes. 'Then man is the property of the animal kingdom.' But this is a fallacy: for we say that man 'belongs to' the animal kingdom because he is an animal, just as we say that Lysander 'belongs to' the Spartans, because he is a Spartan. It is evident, then, that where the premiss put forward is not clear, one must not grant it simply.

Whenever of two things it is generally thought that if the one is true the other is true of necessity, whereas, if the other is true, the first is not true of necessity, one should, if asked which of them is true, grant the smaller one: for the larger the number of premisses, the harder it is to draw a conclusion from them. If, again, the sophist tries to secure that has a contrary while B has not, suppose what he says is true, you should say that each has a contrary, only for the one there is no established name.

Since, again, in regard to some of the views they express, most people would say that any one who did not admit them was telling a falsehood, while they would not say this in regard to some, e.g. to any matters whereon opinion is divided (for most people have no distinct view whether the soul of animals is destructible or immortal), accordingly (1) it is uncertain in which of two senses the premiss proposed is usually meant-whether as maxims are (for people call by the name of 'maxims' both true opinions and general assertions) or like the doctrine 'the diagonal of a square is incommensurate with its side': and moreover (2) whenever opinions are divided as to the truth, we then have subjects of which it is very easy to change the terminology undetected. For because of the uncertainty in which of the two senses the premiss contains the truth, one will not be thought to be playing any trick, while because of the division of opinion, one will not be thought to be telling a falsehood. Change the terminology therefore, for the change will make the position irrefutable.

Moreover, whenever one foresees any question coming, one should put in one's objection and have one's say beforehand: for by doing so one is likely to embarrass the questioner most effectually.

Inasmuch as a proper solution is an exposure of false reasoning, showing on what kind of question the falsity depends, and whereas 'false reasoning' has a double meaning—for it is used either if a false conclusion has been proved, or if there is only an apparent proof and no real one—there must be both the kind of solution just described, and also the correction of a merely apparent proof, so as to show upon which of the questions the appearance depends. Thus it comes about that one solves arguments that are properly reasoned by demolishing them, whereas one solves merely apparent arguments by drawing distinctions. Again, inasmuch as of arguments that are properly reasoned some have a true and others a false conclusion, those that are false in respect of their conclusion it is possible to solve in two ways; for it is possible both by demolishing one of the premisses asked, and by showing that the conclusion is not the real state of the case: those, on the other hand, that are false in respect of the premisses can be solved only by a demolition of one of them; for the conclusion is true. So that those who wish to solve an argument should in the first place look and see if it is properly reasoned, or is unreasoned; and next, whether the conclusion be true or false, in order that we may effect the solution either by drawing some distinction or by demolishing something, and demolishing it either in this way or in that, as was laid down before. There is a very great deal of difference between solving an argument when being subjected to questions and when not: for to foresee traps is difficult, whereas to see them at one's leisure is easier.

19

Of the refutations, then, that depend upon ambiguity and amphiboly some contain some question with more than one meaning, while others contain a conclusion bearing a number of senses: e.g. in the proof that 'speaking of the silent' is possible, the conclusion has a double meaning, while in the proof that 'he who knows does not understand what he knows' one of the questions contains an amphiboly. Also the double-edged saying is true in one context but not in another: it means something that is and something that is not.

Whenever, then, the many senses lie in the conclusion no refutation takes place unless the sophist secures as well the contradiction of the conclusion he means to prove; e.g. in the proof that 'seeing of the blind' is possible: for without the contradiction there was no refutation. Whenever, on the other hand, the many senses lie in the questions, there is no necessity to begin by denying the double-edged premiss: for this was not the goal of the argument but only its support. At the start, then, one should reply with regard to an ambiguity, whether of a term or of a phrase, in this manner, that 'in one sense it is so, and in another not so', as e.g. that 'speaking of the silent' is in one sense possible but in another not possible: also that in one sense 'one should do what must needs be done', but not in another: for 'what must needs be' bears a number of senses. If, however, the ambiguity escapes one, one should correct it at the end by making an addition to the

question: 'Is speaking of the silent possible?' 'No, but to speak of while he is silent is possible.' Also, in cases which contain the ambiguity in their premisses, one should reply in like manner: 'Do people-then not understand what they know? "Yes, but not those who know it in the manner described': for it is not the same thing to say that 'those who know cannot understand what they know', and to say that 'those who know something in this particular manner cannot do so'. In general, too, even though he draws his conclusion in a quite unambiguous manner, one should contend that what he has negated is not the fact which one has asserted but only its name; and that therefore there is no refutation.

20

It is evident also how one should solve those refutations that depend upon the division and combination of words: for if the expression means something different when divided and when combined, as soon as one's opponent draws his conclusion one should take the expression in the contrary way. All such expressions as the following depend upon the combination or division of the words: 'Was X being beaten with that with which you saw him being beaten?' and 'Did you see him being beaten with that with which he was being beaten?' This fallacy has also in it an element of amphiboly in the questions, but it really depends upon combination. For the meaning that depends upon the division of the words is not really a double meaning (for the expression when divided is not the same), unless also the word that is pronounced, according to its breathing, as *eros* and *eros* is a case of double meaning. (In writing, indeed, a word is the same whenever it is written of the same letters and in the same manner- and even there people nowadays put marks at the side to show the pronunciation- but the spoken words are not the same.) Accordingly an expression that depends upon division is not an ambiguous one. It is evident also that not all refutations depend upon ambiguity as some people say they do.

The answerer, then, must divide the expression: for 'I-saw-a-man-being-beaten with my eyes' is not the same as to say 'I saw a man being-beaten-with-my-eyes'. Also there is the argument of Euthydemus proving 'Then you know now in Sicily that there are triremes in Piraeus': and again, 'Can a good man who is a cobbler be bad?' 'No.' 'But a good man may be a bad cobbler: therefore a good cobbler will be bad.' Again, 'Things the knowledge of which is good, are good things to learn, aren't they?' 'Yes.' 'The knowledge, however, of evil is good: therefore evil is a good thing to know.' 'Yes. But, you see, evil is both evil and a thing-to-learn, so that evil is an evil-thing-to-learn, although the knowledge of evils is good.' Again, 'Is it true to say in the present moment that you are born?' 'Yes.' 'Then you are born in the present moment.' 'No; the expression as divided has a different meaning: for it is true to say-in-the-present-moment that "you are born", but not "You are born-in-the-present-moment".' Again, 'Could you do what you can, and as you can?' 'Yes.' 'But when not harping, you have the power to harp: and therefore you could harp when not harping.' 'No: he has not the

power to harp-while-not-harping; merely, when he is not doing it, he has the power to do it.' Some people solve this last refutation in another way as well. For, they say, if he has granted that he can do anything in the way he can, still it does not follow that he can harp when not harping: for it has not been granted that he will do anything in every way in which he can; and it is not the same thing 'to do a thing in the way he can' and 'to do it in every way in which he can'. But evidently they do not solve it properly: for of arguments that depend upon the same point the solution is the same, whereas this will not fit all cases of the kind nor yet all ways of putting the questions: it is valid against the questioner, but not against his argument.

21

Accentuation gives rise to no fallacious arguments, either as written or as spoken, except perhaps some few that might be made up; e.g. the following argument. 'Is ou katalueis a house?' 'Yes.' 'Is then ou katalueis the negation of katalueis?' 'Yes.' 'But you said that ou katalueis is a house: therefore the house is a negation.' How one should solve this, is clear: for the word does not mean the same when spoken with an acuter and when spoken with a graver accent.

22

It is clear also how one must meet those fallacies that depend on the identical expressions of things that are not identical, seeing that we are in possession of the kinds of predications. For the one man, say, has granted, when asked, that a term denoting a substance does not belong as an attribute, while the other has shown that some attribute belongs which is in the Category of Relation or of Quantity, but is usually thought to denote a substance because of its expression; e.g. in the following argument: 'Is it possible to be doing and to have done the same thing at the same time?' 'No.' 'But, you see, it is surely possible to be seeing and to have seen the same thing at the same time, and in the same aspect.' Again, 'Is any mode of passivity a mode of activity?' 'No.' 'Then "he is cut", "he is burnt", "he is struck by some sensible object" are alike in expression and all denote some form of passivity, while again "to say", "to run", "to see" are like one like another in expression: but, you see, "to see" is surely a form of being struck by a sensible object; therefore it is at the same time a form of passivity and of activity.' Suppose, however, that in that case any one, after granting that it is not possible to do and to have done the same thing in the same time, were to say that it is possible to see and to have seen it, still he has not yet been refuted, suppose him to say that 'to see' is not a form of 'doing' (activity) but of 'passivity': for this question is required as well, though he is supposed by the listener to have already granted it, when he granted that 'to cut' is a form of present, and 'to have cut' a form of past, activity, and so on with the other things that have a like expression. For the listener adds the rest by himself, thinking the meaning to be alike: whereas

really the meaning is not alike, though it appears to be so because of the expression. The same thing happens here as happens in cases of ambiguity: for in dealing with ambiguous expressions the tyro in argument supposes the sophist to have negated the fact which he (the tyro) affirmed, and not merely the name: whereas there still wants the question whether in using the ambiguous term he had a single meaning in view: for if he grants that that was so, the refutation will be effected.

Like the above are also the following arguments. It is asked if a man has lost what he once had and afterwards has not: for a man will no longer have ten dice even though he has only lost one die. No: rather it is that he has lost what he had before and has not now; but there is no necessity for him to have lost as much or as many things as he has not now. So then, he asks the questions as to what he has, and draws the conclusion as to the whole number that he has: for ten is a number. If then he had asked to begin with, whether a man no longer having the number of things he once had has lost the whole number, no one would have granted it, but would have said 'Either the whole number or one of them'. Also there is the argument that 'a man may give what he has not got': for he has not got only one die. No: rather it is that he has given not what he had not got, but in a manner in which he had not got it, viz. just the one. For the word 'only' does not signify a particular substance or quality or number, but a manner relation, e.g. that it is not coupled with any other. It is therefore just as if he had asked 'Could a man give what he has not got?' and, on being given the answer 'No', were to ask if a man could give a thing quickly when he had not got it quickly, and, on this being granted, were to conclude that 'a man could give what he had not got'. It is quite evident that he has not proved his point: for to 'give quickly' is not to give a thing, but to give in a certain manner; and a man could certainly give a thing in a manner in which he has not got it, e.g. he might have got it with pleasure and give it with pain.

Like these are also all arguments of the following kind: 'Could a man strike a blow with a hand which he has not got, or see with an eye which he has not got?' For he has not got only one eye. Some people solve this case, where a man has more than one eye, or more than one of anything else, by saying also that he has only one. Others also solve it as they solve the refutation of the view that 'what a man has, he has received': for A gave only one vote; and certainly B, they say, has only one vote from A. Others, again, proceed by demolishing straight away the proposition asked, and admitting that it is quite possible to have what one has not received; e.g. to have received sweet wine, but then, owing to its going bad in the course of receipt, to have it sour. But, as was said also above, 'all these persons direct their solutions against the man, not against his argument. For if this were a genuine solution, then, suppose any one to grant the opposite, he could find no solution, just as happens in other cases; e.g. suppose the true solution to be 'So-and-so is partly true and partly not', then, if the answerer grants the expression without any qualification, the sophist's conclusion follows. If, on

the other hand, the conclusion does not follow, then that could not be the true solution: and what we say in regard to the foregoing examples is that, even if all the sophist's premisses be granted, still no proof is effected.

Moreover, the following too belong to this group of arguments. 'If something be in writing did some one write it?' 'Yes.' 'But it is now in writing that you are seated-a false statement, though it was true at the time when it was written: therefore the statement that was written is at the same time false and true.' But this is fallacious, for the falsity or truth of a statement or opinion indicates not a substance but a quality: for the same account applies to the case of an opinion as well. Again, 'Is what a learner learns what he learns?' 'Yes.' 'But suppose some one learns "slow" quick'. Then his (the sophist's) words denote not what the learner learns but how he learns it. Also, 'Does a man tread upon what he walks through?' 'Yes.' 'But X walks through a whole day.' No, rather the words denote not what he walks through, but when he walks; just as when any one uses the words 'to drink the cup' he denotes not what he drinks, but the vessel out of which he drinks. Also, 'Is it either by learning or by discovery that a man knows what he knows?' 'Yes.' 'But suppose that of a pair of things he has discovered one and learned the other, the pair is not known to him by either method.' No: 'what' he knows, means 'every single thing' he knows, individually; but this does not mean 'all the things' he knows, collectively. Again, there is the proof that there is a 'third man' distinct from Man and from individual men. But that is a fallacy, for 'Man', and indeed every general predicate, denotes not an individual substance, but a particular quality, or the being related to something in a particular manner, or something of that sort. Likewise also in the case of 'Coriscus' and 'Coriscus the musician' there is the problem, Are they the same or different?' For the one denotes an individual substance and the other a quality, so that it cannot be isolated; though it is not the isolation which creates the 'third man', but the admission that it is an individual substance. For 'Man' cannot be an individual substance, as Callias is. Nor is the case improved one whit even if one were to call the clement he has isolated not an individual substance but a quality: for there will still be the one beside the many, just as 'Man' was. It is evident then that one must not grant that what is a common predicate applying to a class universally is an individual substance, but must say that denotes either a quality, or a relation, or a quantity, or something of that kind.

It is a general rule in dealing with arguments that depend on language that the solution always follows the opposite of the point on which the argument turns: e.g. if the argument depends upon combination, then the solution consists in division; if upon division, then in combination. Again, if it depends on an acute accent, the solution is a grave accent; if on a grave accent, it is an acute. If it depends on ambiguity, one can solve it by using the opposite

term; e.g. if you find yourself calling something inanimate, despite your previous denial that it was so, show in what sense it is alive: if, on the other hand, one has declared it to be inanimate and the sophist has proved it to be animate, say how it is inanimate. Likewise also in a case of amphiboly. If the argument depends on likeness of expression, the opposite will be the solution. 'Could a man give what he has not got? 'No, not what he has not got; but he could give it in a way in which he has not got it, e.g. one die by itself.'

Does a man know either by learning or by discovery each thing that he knows, singly? but not the things that he knows, collectively.'

Also a man treads, perhaps, on any thing he walks through, but not on the time he walks through. Likewise also in the case of the other examples.

24

In dealing with arguments that depend on Accident, one and the same solution meets all cases. For since it is indeterminate when an attribute should be ascribed to a thing, in cases where it belongs to the accident of the thing, and since in some cases it is generally agreed and people admit that it belongs, while in others they deny that it need belong, we should therefore, as soon as the conclusion has been drawn, say in answer to them all alike, that there is no need for such an attribute to belong. One must, however, be prepared to adduce an example of the kind of attribute meant. All arguments such as the following depend upon Accident. 'Do you know what I am going to ask you? you know the man who is approaching', or 'the man in the mask?' 'Is the statue your work of art?' or 'Is the dog your father?' 'Is the product of a small number with a small number a small number?' For it is evident in all these cases that there is no necessity for the attribute which is true of the thing's accident to be true of the thing as well. For only to things that are indistinguishable and one in essence is it generally agreed that all the same attributes belong; whereas in the case of a good thing, to be good is not the same as to be going to be the subject of a question; nor in the case of a man approaching, or wearing a mask, is 'to be approaching' the same thing as 'to be Coriscus', so that suppose I know Coriscus, but do not know the man who is approaching, it still isn't the case that I both know and do not know the same man; nor, again, if this is mine and is also a work of art, is it therefore my work of art, but my property or thing or something else. (The solution is after the same manner in the other cases as well.)

Some solve these refutations by demolishing the original proposition asked: for they say that it is possible to know and not to know the same thing, only not in the same respect: accordingly, when they don't know the man who is coming towards them, but do know Corsicus, they assert that they do know and don't know the same object, but not in the same respect. Yet, as we have already remarked, the correction of arguments that depend upon the same point ought to be the same, whereas this one will not stand if one adopts the same principle in regard not to knowing something, but to being, or to being is a in a certain state, e.g. suppose that X is father, and is also yours: for

if in some cases this is true and it is possible to know and not to know the same thing, yet with that case the solution stated has nothing to do. Certainly there is nothing to prevent the same argument from having a number of flaws; but it is not the exposition of any and every fault that constitutes a solution: for it is possible for a man to show that a false conclusion has been proved, but not to show on what it depends, e.g. in the case of Zeno's argument to prove that motion is impossible. So that even if any one were to try to establish that this doctrine is an impossible one, he still is mistaken, and even if he proved his case ten thousand times over, still this is no solution of Zeno's argument: for the solution was all along an exposition of false reasoning, showing on what its falsity depends. If then he has not proved his case, or is trying to establish even a true proposition, or a false one, in a false manner, to point this out is a true solution. Possibly, indeed, the present suggestion may very well apply in some cases: but in these cases, at any rate, not even this would be generally agreed: for he knows both that Coriscus is Coriscus and that the approaching figure is approaching. To know and not to know the same thing is generally thought to be possible, when e.g. one knows that X is white, but does not realize that he is musical: for in that way he does know and not know the same thing, though not in the same respect. But as to the approaching figure and Coriscus he knows both that it is approaching and that he is Coriscus.

A like mistake to that of those whom we have mentioned is that of those who solve the proof that every number is a small number: for if, when the conclusion is not proved, they pass this over and say that a conclusion has been proved and is true, on the ground that every number is both great and small, they make a mistake.

Some people also use the principle of ambiguity to solve the aforesaid reasonings, e.g. the proof that 'X is your father', or 'son', or 'slave'. Yet it is evident that if the appearance a proof depends upon a plurality of meanings, the term, or the expression in question, ought to bear a number of literal senses, whereas no one speaks of A as being 'B's child' in the literal sense, if B is the child's master, but the combination depends upon Accident. 'Is A yours?' 'Yes.' 'And is A a child?' 'Yes.' 'Then the child A is yours,' because he happens to be both yours and a child; but he is not 'your child'.

There is also the proof that 'something "of evils" is good'; for wisdom is a 'knowledge "of evils"'. But the expression that this is 'of so and-so' (= 'so-and-so's') has not a number of meanings: it means that it is 'so-and-so's property'. We may suppose of course, on the other hand, that it has a number of meanings-for we also say that man is 'of the animals', though not their property; and also that any term related to 'evils' in a way expressed by a genitive case is on that account a so-and-so 'of evils', though it is not one of the evils-but in that case the apparently different meanings seem to depend on whether the term is used relatively or absolutely. 'Yet it is conceivably possible to find a real ambiguity in the phrase

"Something of evils is good". Perhaps, but not with regard to the phrase in question. It would occur more nearly, suppose that 'A servant is good of the wicked'; though perhaps it is not quite found even there: for a thing may be 'good' and be 'X's' without being at the same time 'X's good'. Nor is the saying that 'Man is of the animals' a phrase with a number of meanings: for a phrase does not become possessed of a number of meanings merely suppose we express it elliptically: for we express 'Give me the Iliad' by quoting half a line of it, e.g. 'Give me "Sing, goddess, of the wrath..."'

25

Those arguments which depend upon an expression that is valid of a particular thing, or in a particular respect, or place, or manner, or relation, and not valid absolutely, should be solved by considering the conclusion in relation to its contradictory, to see if any of these things can possibly have happened to it. For it is impossible for contraries and opposites and an affirmative and a negative to belong to the same thing absolutely; there is, however, nothing to prevent each from belonging in a particular respect or relation or manner, or to prevent one of them from belonging in a particular respect and the other absolutely. So that if this one belongs absolutely and that one in a particular respect, there is as yet no refutation. This is a feature one has to find in the conclusion by examining it in comparison with its contradictory.

All arguments of the following kind have this feature: 'Is it possible for what is-not to be? "No." But, you see, it is something, despite its not being.' Likewise also, Being will not be; for it will not be some particular form of being. Is it possible for the same man at the same time to be a keeper and a breaker of his oath?' 'Can the same man at the same time both obey and disobey the same man?' Or isn't it the case that being something in particular and Being are not the same? On the other hand, Not-being, even if it be something, need not also have absolute 'being' as well. Nor if a man keeps his oath in this particular instance or in this particular respect, is he bound also to be a keeper of oaths absolutely, but he who swears that he will break his oath, and then breaks it, keeps this particular oath only; he is not a keeper of his oath: nor is the disobedient man 'obedient', though he obeys one particular command. The argument is similar, also, as regards the problem whether the same man can at the same time say what is both false and true: but it appears to be a troublesome question because it is not easy to see in which of the two connexions the word 'absolutely' is to be rendered-with 'true' or with 'false'. There is, however, nothing to prevent it from being false absolutely, though true in some particular respect or relation, i.e. being true in some things, though not 'true' absolutely. Likewise also in cases of some particular relation and place and time. For all arguments of the following kind depend upon this. 'Is health, or wealth, a good thing?' 'Yes.' 'But to the fool who does not use it aright it is not a good thing: therefore it is both good and not good.' 'Is health, or political power, a good thing?' 'Yes. "But sometimes it is not particularly good: therefore

the same thing is both good and not good to the same man.' Or rather there is nothing to prevent a thing, though good absolutely, being not good to a particular man, or being good to a particular man, and yet not good or here. 'Is that which the prudent man would not wish, an evil?' 'Yes.' 'But to get rid of, he would not wish the good: therefore the good is an evil.' But that is a mistake; for it is not the same thing to say 'The good is an evil' and 'to get rid of the good is an evil'. Likewise also the argument of the thief is mistaken. For it is not the case that if the thief is an evil thing, acquiring things is also evil: what he wishes, therefore, is not what is evil but what is good; for to acquire something good is good. Also, disease is an evil thing, but not to get rid of disease. 'Is the just preferable to the unjust, and what takes place justly to what takes place unjustly?' 'Yes.' 'But to be put to death unjustly is preferable.' 'Is it just that each should have his own?' 'Yes.' 'But whatever decisions a man comes to on the strength of his personal opinion, even if it be a false opinion, are valid in law: therefore the same result is both just and unjust.' Also, should one decide in favour of him who says what is unjust?' 'The former.' 'But you see, it is just for the injured party to say fully the things he has suffered; and these are fallacies. For because to suffer a thing unjustly is preferable, unjust ways are not therefore preferable, though in this particular case the unjust may very well be better than the just. Also, to have one's own is just, while to have what is another's is not just: all the same, the decision in question may very well be a just decision, whatever it be that the opinion of the man who gave the decision supports: for because it is just in this particular case or in this particular manner, it is not also just absolutely. Likewise also, though things are unjust, there is nothing to prevent the speaking of them being just: for because to speak of things is just, there is no necessity that the things should be just, any more than because to speak of things be of use, the things need be of use. Likewise also in the case of what is just. So that it is not the case that because the things spoken of are unjust, the victory goes to him who speaks unjust things: for he speaks of things that are just to speak of, though absolutely, i.e. to suffer, they are unjust.

26

Refutations that depend on the definition of a refutation must, according to the plan sketched above, be met by comparing together the conclusion with its contradictory, and seeing that it shall involve the same attribute in the same respect and relation and manner and time. If this additional question be put at the start, you should not admit that it is impossible for the same thing to be both double and not double, but grant that it is possible, only not in such a way as was agreed to constitute a refutation of your case. All the following arguments depend upon a point of that kind. 'Does a man who knows A to be A, know the thing called A?' and in the same way, 'is one who is ignorant that A is A ignorant of the thing called A?' 'Yes.' 'But one who knows that Coriscus is Coriscus might be ignorant of the fact that he is musical, so that he both knows and is ignorant of the same thing.' Is a thing four cubits long greater

than a thing three cubits long?' 'Yes.' 'But a thing might grow from three to four cubits in length; 'now what is 'greater' is greater than a 'less': accordingly the thing in question will be both greater and less than itself in the same respect.

27

As to refutations that depend on begging and assuming the original point to be proved, suppose the nature of the question to be obvious, one should not grant it, even though it be a view generally held, but should tell him the truth. Suppose, however, that it escapes one, then, thanks to the badness of arguments of that kind, one should make one's error recoil upon the questioner, and say that he has brought no argument: for a refutation must be proved independently of the original point. Secondly, one should say that the point was granted under the impression that he intended not to use it as a premiss, but to reason against it, in the opposite way from that adopted in refutations on side issues.

28

Also, those refutations that bring one to their conclusion through the consequent you should show up in the course of the argument itself. The mode in which consequences follow is twofold. For the argument either is that as the universal follows on its particular-as (e.g.) 'animal' follows from 'man'-so does the particular on its universal: for the claim is made that if A is always found with B, then B also is always found with A. Or else it proceeds by way of the opposites of the terms involved: for if A follows B, it is claimed that A's opposite will follow B's opposite. On this latter claim the argument of Melissus also depends: for he claims that because that which has come to be has a beginning, that which has not come to be has none, so that if the heaven has not come to be, it is also eternal. But that is not so; for the sequence is vice versa.

29

In the case of any refutations whose reasoning depends on some addition, look and see if upon its subtraction the absurdity follows none the less: and then if so, the answerer should point this out, and say that he granted the addition not because he really thought it, but for the sake of the argument, whereas the questioner has not used it for the purpose of his argument at all.

30

To meet those refutations which make several questions into one, one should draw a distinction between them straight away at the start. For a question must be single to which there is a single answer, so that one must not affirm or deny several things of one thing, nor one thing of many, but one of one. But just as in the case of ambiguous terms, an attribute belongs to a term sometimes in both its senses, and

sometimes in neither, so that a simple answer does one, as it happens, no harm despite the fact that the question is not simple, so it is in these cases of double questions too. Whenever, then, the several attributes belong to the one subject, or the one to the many, the man who gives a simple answer encounters no obstacle even though he has committed this mistake: but whenever an attribute belongs to one subject but not to the other, or there is a question of a number of attributes belonging to a number of subjects and in one sense both belong to both, while in another sense, again, they do not, then there is trouble, so that one must beware of this. Thus (e.g.) in the following arguments: Supposing to be good and B evil, you will, if you give a single answer about both, be compelled to say that it is true to call these good, and that it is true to call them evil and likewise to call them neither good nor evil (for each of them has not each character), so that the same thing will be both good and evil and neither good nor evil. Also, since everything is the same as itself and different from anything else, inasmuch as the man who answers double questions simply can be made to say that several things are 'the same' not as other things but 'as themselves', and also that they are different from themselves, it follows that the same things must be both the same as and different from themselves. Moreover, if what is good becomes evil while what is evil is good, then they must both become two. So of two unequal things each being equal to itself, it will follow that they are both equal and unequal to themselves.

Now these refutations fall into the province of other solutions as well: for 'both' and 'all' have more than one meaning, so that the resulting affirmation and denial of the same thing does not occur, except verbally: and this is not what we meant by a refutation. But it is clear that if there be not put a single question on a number of points, but the answerer has affirmed or denied one attribute only of one subject only, the absurdity will not come to pass.

31

With regard to those who draw one into repeating the same thing a number of times, it is clear that one must not grant that predications of relative terms have any meaning in abstraction by themselves, e.g. that 'double' is a significant term apart from the whole phrase 'double of half' merely on the ground that it figures in it. For ten figures in 'ten minus one' and in 'not do', and generally the affirmation in the negation; but for all that, suppose any one were to say, 'This is not white', he does not say that it is white. The bare word 'double', one may perhaps say, has not even any meaning at all, any more than has 'the' in 'the half': and even if it has a meaning, yet it has not the same meaning as in the combination. Nor is 'knowledge' the same thing in a specific branch of it (suppose it, e.g. to be 'medical knowledge') as it is in general: for in general it was the 'knowledge of the knowable'. In the case of terms that are predicated of the terms through which they are defined, you should say the same thing, that the term defined is not the same in abstraction as it is in the whole phrase. For 'concave' has a general meaning which is the same in the case of a snub nose, and of a bandy leg,

but when added to either substantive nothing prevents it from differentiating its meaning; in fact it bears one sense as applied to the nose, and another as applied to the leg: for in the former connexion it means 'snub' and in the latter 'bandyshaped'; i.e. it makes no difference whether you say 'a snub nose' or 'a concave nose'. Moreover, the expression must not be granted in the nominative case: for it is a falsehood. For snubness is not a concave nose but something (e.g. an affection) belonging to a nose: hence, there is no absurdity in supposing that the snub nose is a nose possessing the concavity that belongs to a nose.

32

With regard to solecisms, we have previously said what it is that appears to bring them about; the method of their solution will be clear in the course of the arguments themselves. Solecism is the result aimed at in all arguments of the following kind: 'Is a thing truly that which you truly call it?' 'Yes'. 'But, speaking of a stone, you call him real: therefore of a stone it follows that "him is real".' No: rather, talking of a stone means not saying which' but 'whom', and not 'that' but 'him'. If, then, any one were to ask, 'Is a stone him whom you truly call him?' he would be generally thought not to be speaking good Greek, any more than if he were to ask, 'Is he what you call her?' Speak in this way of a 'stick' or any neuter word, and the difference does not break out. For this reason, also, no solecism is incurred, suppose any one asks, 'Is a thing what you say it to be?' 'Yes'. 'But, speaking of a stick, you call it real: therefore, of a stick it follows that it is real.' 'Stone', however, and 'he' have masculine designations. Now suppose some one were to ask, 'Can "he" be a she' (a female)?', and then again, 'Well, but is not he Coriscus?' and then were to say, 'Then he is a "she"', he has not proved the solecism, even if the name 'Coriscus' does signify a 'she', if, on the other hand, the answerer does not grant this: this point must be put as an additional question: while if neither is it the fact nor does he grant it, then the sophist has not proved his case either in fact or as against the person he has been questioning. In like manner, then, in the above instance as well it must be definitely put that 'he' means the stone. If, however, this neither is so nor is granted, the conclusion must not be stated: though it follows apparently, because the case (the accusative), that is really unlike, appears to be like the nominative. 'Is it true to say that this object is what you call it by name?' 'Yes'. 'But you call it by the name of a shield: this object therefore is "of a shield".' No: not necessarily, because the meaning of 'this object' is not 'of a shield' but 'a shield': 'of a shield' would be the meaning of 'this object's'. Nor again if 'He is what you call him by name', while 'the name you call him by is Cleon's', is he therefore 'Cleon's': for he is not 'Cleon's', for what was said was that 'He, not his, is what I call him by name'. For the question, if put in the latter way, would not even be Greek. 'Do you know this?' 'Yes.' 'But this is he: therefore you know he'. No: rather 'this' has not the same meaning in 'Do you know this?' as in 'This is a stone'; in the first it stands for an accusative, in the second for a nominative

case. 'When you have understanding of anything, do you understand it?' 'Yes.' 'But you have understanding of a stone: therefore you understand of a stone.' No: the one phrase is in the genitive, 'of a stone', while the other is in the accusative, 'a stone': and what was granted was that 'you understand that, not of that, of which you have understanding', so that you understand not 'of a stone', but 'the stone'.

Thus that arguments of this kind do not prove solecism but merely appear to do so, and both why they so appear and how you should meet them, is clear from what has been said.

33

We must also observe that of all the arguments aforesaid it is easier with some to see why and where the reasoning leads the hearer astray, while with others it is more difficult, though often they are the same arguments as the former. For we must call an argument the same if it depends upon the same point; but the same argument is apt to be thought by some to depend on diction, by others on accident, and by others on something else, because each of them, when worked with different terms, is not so clear as it was. Accordingly, just as in fallacies that depend on ambiguity, which are generally thought to be the silliest form of fallacy, some are clear even to the man in the street (for humorous phrases nearly all depend on diction; e.g. 'The man got the cart down from the stand'; and 'Where are you bound?' 'To the yard arm'; and 'Which cow will calve afore?' 'Neither, but both behind'; and 'Is the North wind clear?' 'No, indeed; for it has murdered the beggar and the merchant.' 'Is he a Good enough-King?' 'No, indeed; a Rob-son': and so with the great majority of the rest as well), while others appear to elude the most expert (and it is a symptom of this that they often fight about their terms, e.g. whether the meaning of 'Being' and 'One' is the same in all their applications or different; for some think that 'Being' and 'One' mean the same; while others solve the argument of Zeno and Parmenides by asserting that 'One' and 'Being' are used in a number of senses), likewise also as regards fallacies of Accident and each of the other types, some of the arguments will be easier to see while others are more difficult; also to grasp to which class a fallacy belongs, and whether it is a refutation or not a refutation, is not equally easy in all cases.

An incisive argument is one which produces the greatest perplexity: for this is the one with the sharpest fang. Now perplexity is twofold, one which occurs in reasoned arguments, respecting which of the propositions asked one is to demolish, and the other in contentious arguments, respecting the manner in which one is to assent to what is propounded. Therefore it is in syllogistic arguments that the more incisive ones produce the keenest heart-searching. Now a syllogistic argument is most incisive if from premisses that are as generally accepted as possible it demolishes a conclusion that is accepted as generally as possible. For the one argument, if the contradictory is changed about, makes all the resulting syllogisms

alike in character: for always from premisses that are generally accepted it will prove a conclusion, negative or positive as the case may be, that is just as generally accepted; and therefore one is bound to feel perplexed. An argument, then, of this kind is the most incisive, viz. the one that puts its conclusion on all fours with the propositions asked; and second comes the one that argues from premisses, all of which are equally convincing: for this will produce an equal perplexity as to what kind of premiss, of those asked, one should demolish. Herein is a difficulty: for one must demolish something, but what one must demolish is uncertain. Of contentious arguments, on the other hand, the most incisive is the one which, in the first place, is characterized by an initial uncertainty whether it has been properly reasoned or not; and also whether the solution depends on a false premiss or on the drawing of a distinction; while, of the rest, the second place is held by that whose solution clearly depends upon a distinction or a demolition, and yet it does not reveal clearly which it is of the premisses asked, whose demolition, or the drawing of a distinction within it, will bring the solution about, but even leaves it vague whether it is on the conclusion or on one of the premisses that the deception depends.

Now sometimes an argument which has not been properly reasoned is silly, supposing the assumptions required to be extremely contrary to the general view or false; but sometimes it ought not to be held in contempt. For whenever some question is left out, of the kind that concerns both the subject and the nerve of the argument, the reasoning that has both failed to secure this as well, and also failed to reason properly, is silly; but when what is omitted is some extraneous question, then it is by no means to be lightly despised, but the argument is quite respectable, though the questioner has not put his questions well.

Just as it is possible to bring a solution sometimes against the argument, at others against the questioner and his mode of questioning, and at others against neither of these, likewise also it is possible to marshal one's questions and reasoning both against the thesis, and against the answerer and against the time, whenever the solution requires a longer time to examine than the period available.

34

As to the number, then, and kind of sources whence fallacies arise in discussion, and how we are to show that our opponent is committing a fallacy and make him utter paradoxes; moreover, by the use of what materials solecism is brought about, and how to question and what is the way to arrange the questions; moreover, as to the question what use is served by all arguments of this kind, and concerning the answerer's part, both as a whole in general, and in particular how to solve arguments and solecisms-on all these things let the foregoing discussion suffice. It remains to recall our original proposal and to bring our discussion to a close with a few words upon it.

Our programme was, then, to discover some faculty of reasoning about any theme put before us from the most generally accepted premisses that there are. For that is the essential task of the art of discussion (dialectic) and of examination (peirastic). Inasmuch, however, as it is annexed to it, on account of the near presence of the art of sophistry (sophistic), not only to be able to conduct an examination dialectically but also with a show of knowledge, we therefore proposed for our treatise not only the aforesaid aim of being able to exact an account of any view, but also the aim of ensuring that in standing up to an argument we shall defend our thesis in the same manner by means of views as generally held as possible. The reason of this we have explained; for this, too, was why Socrates used to ask questions and not to answer them; for he used to confess that he did not know. We have made clear, in the course of what precedes, the number both of the points with reference to which, and of the materials from which, this will be accomplished, and also from what sources we can become well supplied with these: we have shown, moreover, how to question or arrange the questioning as a whole, and the problems concerning the answers and solutions to be used against the reasonings of the questioner. We have also cleared up the problems concerning all other matters that belong to the same inquiry into arguments. In addition to this we have been through the subject of Fallacies, as we have already stated above.

That our programme, then, has been adequately completed is clear. But we must not omit to notice what has happened in regard to this inquiry. For in the case of all discoveries the results of previous labours that have been handed down from others have been advanced bit by bit by those who have taken them on, whereas the original discoveries generally make advance that is small at first though much more useful than the development which later springs out of them. For it may be that in everything, as the saying is, 'the first start is the main part': and for this reason also it is the most difficult; for in proportion as it is most potent in its influence, so it is smallest in its compass and therefore most difficult to see: whereas when this is once discovered, it is easier to add and develop the remainder in connexion with it. This is in fact what has happened in regard to rhetorical speeches and to practically all the other arts: for those who discovered the beginnings of them advanced them in all only a little way, whereas the celebrities of to-day are the heirs (so to speak) of a long succession of men who have advanced them bit by bit, and so have developed them to their present form, Tisias coming next after the first founders, then Thrasymachus after Tisias, and Theodorus next to him, while several people have made their several contributions to it: and therefore it is not to be wondered at that the art has attained considerable dimensions. Of this inquiry, on the other hand, it was not the case that part of the work had been thoroughly done before, while part had not. Nothing existed at all. For the training given by the paid professors of contentious arguments was like the treatment of the matter by Gorgias. For they used to hand out speeches to be learned by heart, some rhetorical, others in the form of question and answer,

each side supposing that their arguments on either side generally fall among them. And therefore the teaching they gave their pupils was ready but rough. For they used to suppose that they trained people by imparting to them not the art but its products, as though any one professing that he would impart a form of knowledge to obviate any pain in the feet, were then not to teach a man the art of shoe-making or the sources whence he can acquire anything of the kind, but were to present him with several kinds of shoes of all sorts: for he has helped him to meet his need, but has not imparted an art to him. Moreover, on the subject of Rhetoric there exists much that has been said long ago, whereas on the subject of reasoning we had nothing else of an earlier date to speak of at all, but were kept at work for a long time in experimental researches. If, then, it seems to you after inspection that, such being the situation as it existed at the start, our investigation is in a satisfactory condition compared with the other inquiries that have been developed by tradition, there must remain for all of you, or for our students, the task of extending us your pardon for the shortcomings of the inquiry, and for the discoveries thereof your warm thanks.

-THE END-

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