DE INTERPRETATIONE

Translated by *J. L. Ackrill*[2]

16a1-16a3 § 1 · First we must settle what a name is and what a verb is, and then what a negation, an affirmation, a statement and a sentence[3] are.

16a4-16a9 Now spoken sounds are symbols of affections in the soul, and written marks symbols of spoken sounds. And just as written marks are not the same for all men, neither are spoken sounds. But what these are in the first place signs of—affections of the soul—are the same for all; and what these affections are likenesses of—actual things—are also the same. These matters have been discussed in the work on the soul[4] and do not belong to the present subject.

16a10-16a18 Just as some thoughts in the soul are neither true nor false while some are necessarily one or the other, so also with spoken sounds. For falsity and truth have to do with combination and separation. Thus names and verbs by themselves—for instance 'man' or 'white' when nothing further is added—are like the thoughts that are without combination and separation; for so far they are neither true nor false. A sign of this is that even 'goat-stag' signifies something but not, as yet, anything true or false—unless 'is' or 'is not' is added (either simply or with reference to time).

16a19-16a26 § 2 · A *name* is a spoken sound significant by convention, without time, none of whose parts is significant in separation. For in 'Whitfield' the 'field' does not signify anything in its own right, as it does in the phrase 'white field'. Not that it is the same with complex names as with simple ones: in the latter the part is in no

[2] TEXT: L. Minio-Paluello, OCT, Oxford, 1956, 2nd ed.

[3] 'Sentence' here and hereafter translates *logos*.

[4] See *de Anima* III 3-8.

way significant, in the former it has some force but is not significant of anything in separation, for example the 'boat' in 'pirate-boat'.

I say 'by convention' because no name is a name naturally but only when it has become a symbol. Even inarticulate noises (of beasts, for instance) do indeed reveal something, yet none of them is a name. 16a27-16a29

'Not man' is not a name, nor is there any correct name for it. It is neither a phrase nor a negation. Let us call it an indefinite name. 16a30-16a31

'Philo's', 'to-Philo', and the like are not names but inflexions of names. The same account holds for them as for names except that an inflexion when combined with 'is', 'was', or 'will be' is not true or false whereas a name always is. Take, for example, 'Philo's is' or 'Philo's is not'; so far there is nothing either true or false. 16b1-16b5

§ 3 · A *verb* is what additionally signifies time, no part of it being significant separately; and it is a sign of things said of something else. 16b6-16b7

It additionally signifies time: 'recovery' is a name, but 'recovers' is a verb, because it additionally signifies something's holding *now*. And it is always a sign of what holds, that is, holds of a subject. 16b8-16b10

'Does not recover' and 'does not ail' I do not call verbs. For though they additionally signify time and always hold of something, yet there is a difference—for which there is no name. Let us call them indefinite verbs, because they hold indifferently of anything whether existent or non-existent. Similarly, 'recovered' and 'will-recover' are not verbs but inflexions of verbs. They differ from the verb in that it additionally signifies the present time, they the time outside the present. 16b11-16b18

When uttered just by itself a verb is a name and signifies something—the speaker arrests his thought and the hearer pauses—but it does not yet signify whether it is or not. For not even[5] 'to be' or 'not to be' is a sign of the actual thing (nor if you say simply 'that which is'); for by itself it is nothing, but it additionally signifies some combination, which cannot be thought of without the components. 16b19-16b25

§ 4 · A *sentence* is a significant spoken sound some part of which is significant in separation—as an expression, not as an affirmation. 16b26-16b28

I mean that animal, for instance, signifies something, but not that it is or is not (though it will be an affirmation or negation if something is added); the single syllables of 'animal', on the other hand, signify nothing. Nor is the 'ice' in 'mice' 16b29-16b33

[5]Read *oude gar*.

significant; here it is simply a spoken sound. In double words, as we said, a part does signify, but not in its own right.

17a1-17a7 Every sentence is significant (not as a tool but, as we said, by convention), but not every sentence is a statement-making sentence, but only those in which there is truth or falsity. There is not truth or falsity in all sentences: a prayer is a sentence but is neither true or false. The present investigation deals with the statement-making sentence; the others we can dismiss, since consideration of them belongs rather to the study of rhetoric or poetry.

17a8-17a9 § 5 · The first single statement-making sentence is the affirmation, next is the negation. The others are single in virtue of a connective.

17a10-17a15 Every statement-making sentence must contain a verb or an inflexion of a verb. For even the definition of man is not yet a statement-making sentence—unless 'is' or 'will be' or 'was' or something of this sort is added. (To explain why 'two-footed land animal' is one thing and not many belongs to a different inquiry; certainly it will not be one simply through being said all together.)

17a16-17a16 A single statement-making sentence is either one that reveals a single thing or one that is single in virtue of a connective. There are more than one if more things than one are revealed or if connectives are lacking.

17a17-17a19 (Let us call a name or a verb simply an expression, since by saying it one cannot reveal anything by one's utterance in such a way as to be making a statement, whether one is answering a question or speaking spontaneously.)

17a20-17a24 Of these the one is a simple statement, affirming or denying something of something, the other is compounded of simple statements and is a kind of composite sentence. The simple statement is a significant spoken sound about whether something does or does not hold (in one of the divisions of time).

17a25-17a26 § 6 · An *affirmation* is a statement affirming something of something, a *negation* is a statement denying something of something.

17a27-17a36 Now it is possible to state of what does hold that it does not hold, of what does not hold that it does hold, of what does hold that it does hold, and of what does not hold that it does not hold. Similarly for times outside the present. So it must be possible to deny whatever anyone has affirmed, and to affirm whatever anyone has denied. Thus it is clear that for every affirmation there is an opposite negation, and for every negation an opposite affirmation. Let us call an affirmation and a negation which are opposite a *contradiction*. I speak of statements as opposite when they affirm and deny the same thing of the same thing—not homonymously, together with all other such conditions that we add to counter the troublesome

objections of sophists.

§ 7 · Now of actual things some are universal, others particular (I call universal that which is by its nature predicated of a number of things, and particular that which is not; man, for instance, is a universal, Callias a particular). So it must sometimes be of a universal that one states that something holds or does not, sometimes of a particular. Now if one states universally of a universal that something holds or does not, there will be contrary statements (examples of what I mean by 'stating universally of a universal' are: every man is white—no man is white). But when one states something of a universal but not universally, the statements are not contrary (though what is being revealed may be contrary). Examples of what I mean by 'stating of a universal not universally' are: a man is white—a man is not white; man is a universal but it is not used universally in the statement (for 'every' does not signify the universal but that it is taken universally). It is not true to predicate a universal universally of a subject, for there cannot be an affirmation in which a universal is predicated universally of a subject, for instance: every man is every animal. 17a37-17b16

I call an affirmation and a negation *contradictory* opposites when what one signifies universally the other signifies not universally, e.g. every man is white—not every man is white, no man is white—some man is white. But I call the universal affirmation and the universal negation contrary opposites, e.g. every man is just—no man is just. So these cannot be true together, but their opposites may both be true with respect to the same thing, e.g. not every man is white—some man is white. 17b17-17b26

Of contradictory statements about a universal taken universally it is necessary for one or the other to be true or false; similarly if they are about particulars, e.g. Socrates is white—Socrates is not white. But if they are about a universal not taken universally it is not always the case that one is true and the other false. For it is true to say at the same time that a man is white and that a man is not white, or that a man is noble and a man is not noble (for if base, then not noble; and if something is becoming something, then it *is* not that thing). This might seem absurd at first sight, because 'a man is not white' looks as it if signifies also at the same time that no man is white; this, however, does not signify the same, nor does it necessarily hold at the same time. 17b27-17b37

It is evident that a single affirmation has a single negation. For the negation must deny the same thing as the affirmation affirmed, and of the same thing, whether a particular or a universal (taken either universally or not universally). I mean, for example, Socrates is white—Socrates is not white. But if something 17b38-18a7

else is denied, or the same thing is denied of something else, that will not be the opposite statement, but a different one. The opposite of 'every man is white' is 'not every man is white'; of 'some man is white', 'no man is white'; of 'a man is white', 'a man is not white'.

18a8-18a12 We have explained, then: that a single affirmation has a single negation as its contradictory opposite, and which these are; that contrary statements are different, and which these are; and that not all contradictory pairs are true or false, why this is, and when they are true or false.

18a13-18a17 § 8 · A single affirmation or negation is one which signifies one thing about one thing (whether about a universal taken universally or not), e.g. every man is white—not every man is white, a man is white—a man is not white, no man is white—some man is white—assuming that 'white' signifies one thing.

18a18-18a27 But if one name is given to two things which do not make up one thing, there is not a single affirmation. Suppose, for example, that one gave the name cloak to horse and man; 'a cloak is white' would not be a single affirmation. For to say this is no different from saying a horse and a man is white, and this is no different from saying a horse is white and a man is white. So if this last signifies more than one thing and is more than one affirmation, clearly the first also signifies either more than one thing or nothing (because no man is a horse). Consequently it is not necessary, with these statements either, for one contradictory to be true and the other false.

18a28-18a33 § 9 · With regard to what is and what has been it is necessary for the affirmation or the negation to be true or false. And with universals taken universally it is always necessary for one to be true and the other false, and with particulars too, as we have said; but with universals not spoken of universally it is not necessary. But with particulars that are going to be it is different.

18a34-18b9 For if every affirmation or negation is true or false it is necessary for everything either to be the case or not to be the case. For if one person says that something will be and another denies this same thing, it is clearly necessary for one of them to be saying what is true—if every affirmation is true or false; for both will not be the case together under such circumstances. For if it is true to say that it is white or is not white, it is necessary for it to be white or not white; and if it is white or is not white, then it was true to say or deny this. If it is not the case it is false, if it is false it is not the case. So it is necessary for the affirmation or the negation to be true. It follows that nothing either is or is happening, or will be or will not be, by chance or as chance has it, but everything of necessity and not as chance has it

(since either he who says or he who denies is saying what is true). For otherwise it might equally well happen or not happen, since what is as chance has it is no more thus than not thus, nor will it be.

Again, if it is white now it was true to say earlier that it would be white; so that 18b10-18b16
it was always true to say of anything that has happened that it would be so. But if it was always true to say that it was so, or would be so, it could not not be so, or not be going to be so. But if something cannot not happen it is impossible for it not to happen; and if it is impossible for something not to happen it is necessary for it to happen. Everything that will be, therefore, happens necessarily. So nothing will come about as chance has it or by chance; for if by chance, not of necessity.

Nor, however, can we say that *neither* is true—that it neither will be nor will 18b17-18b25
not be so. For, firstly, though the affirmation is false the negation is not true, and though the negation is false the affirmation, on this view, is not true. Moreover, if it is true to say that something is white and large,[6] both have to hold of it, and if true that they will hold tomorrow, they will have to hold tomorrow;[7] and if it neither will be nor will not be the case tomorrow, then there is no 'as chance has it'. Take a sea-battle: it would *have* neither to happen nor not to happen.

These and others like them are the absurdities that follow if it is necessary 18b26-19a7
for every affirmation and negation either about universals spoken of universally or about particulars, that one of the opposites be true and the other false, and that nothing of what happens is as chance has it, but everything is and happens of necessity. So there would be no need to deliberate or to take trouble (thinking that if we do this, this will happen, but if we do not, it will not). For there is nothing to prevent someone's having said ten thousand years beforehand that this would be the case, and another's having denied it; so that whichever of the two was true to say then, will be the case of necessity. Nor, of course, does it make any difference whether any people made the contradictory statements or not. For clearly this is how the actual things are even if someone did not affirm it and another deny it. For it is not because of the affirming or denying that it will be or will not be the case, nor is it a question of ten thousand years beforehand rather than any other time. Hence, if in the whole of time the state of things was such that one or the other was true, it was necessary for this to happen, and for the state of things always to be such that everything that happens happens of necessity. For what anyone has truly said would be the case cannot not happen; and of what happens it was always true to say that it would be the case.

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[6] Read *leukon kai mega*.

[7] Read *ei de hyparxei . . . , hyparxein . . .*.

19a8-19a22 But what if this is impossible? For we see that what will be has an origin both in deliberation and in action, and that, in general, in things that are not always actual there is the possibility of being and of not being; here both possibilities are open, both being and not being, and consequently, both coming to be and not coming to be. Many things are obviously like this. For example, it is possible for this cloak to be cut up, and yet it will not be cut up but will wear out first. But equally, its not being cut up is also possible, for it would not be the case that it wore out first unless its not being cut up were possible. So it is the same with all other events that are spoken of in terms of this kind of possibility. Clearly, therefore, not everything is or happens of necessity: some things happen as chance has it, and of the affirmation and the negation neither is true rather than the other; with other things it is one rather than the other and as a rule, but still it is possible for the other to happen instead.

19a23-19a39 What is, necessarily is, when it is; and what is not, necessarily is not, when it is not. But not everything that is, necessarily is; and not everything that is not, necessarily is not. For to say that everything that is, is of necessity, when it is, is not the same as saying unconditionally that it is of necessity. Similarly with what is not. And the same account holds for contradictories: everything necessarily is or is not, and will be or will not be; but one cannot divide and say that one or the other is necessary. I mean, for example: it is necessary for there to be or not to be a sea-battle tomorrow; but it is not necessary for a sea-battle to take place tomorrow, nor for one not to take place—though it is necessary for one to take place or not to take place. So, since statements are true according to how the actual things are, it is clear that wherever these are such as to allow of contraries as chance has it, the same necessarily holds for the contradictories also. This happens with things that are not always so or are not always not so. With these it is necessary for one or the other of the contradictories to be true or false—not, however, this one or that one, but as chance has it; or for one to be true *rather* than the other, yet not *already* true or false.

19b1-19b4 Clearly, then, it is not necessary that of every affirmation and opposite negation one should be true and the other false. For what holds for things that are does not hold for things that are not but may possibly be or not be; with these it is as we have said.

19b5-19b18 § 10 · Now an affirmation signifies something about something, this last being either a name or a 'non-name'; and what is affirmed must be one thing about one thing. (Names and 'non-names' have already been discussed. For I do not call 'not-man' a name but an indefinite name—for what it signifies is in a way one

thing, but indefinite—just as I do not call 'does not recover' a verb). So every affirmation will contain either a name and a verb or an indefinite name and a verb. Without a verb there will be no affirmation or negation. 'Is', 'will be', 'was', 'becomes', and the like are verbs according to what we laid down, since they additionally signify time. So a first affirmation and negation are: 'a man is', 'a man is not'; then, 'a not-man is', 'a not-man is not'; and again, 'every man is', 'every man is not', 'every not-man is', 'every not-man is not'. For times other than the present the same account holds.

But when 'is' is predicated additionally as a third thing, there are two ways of expressing opposition. (I mean, for example, a man is just; here I say that the 'is' is a third component—whether name or verb—in the affirmation.) Because of this there will here be *four* cases (two of which will be related, as to order of sequence, to the affirmation and negation in the way the privations are, while two will not). I mean that 'is' will be added either to 'just' or to 'not-just', and so, too, will the negation. Thus there will be four cases. What is meant should be clear from the following diagram: 19b19-19b30

(a) 'a man is just'	*(b)* 'a man is not just' This is the negation of *(a)*.
(d) 'a man is not not-just' This is the negation of *(c)*.	*(c)* 'a man is not-just'

'Is' and 'is not' are here added to 'just' and to 'not-just'.

This then is how these are arranged (as is said in the *Analytics*).[8] Similarly, too, if the affirmation is about the name taken universally, e.g.: 19b31-19b36

(a) 'every man is just'	*(b)* 'not every man is just'
(d) 'not every man is not-just'	*(c)* 'every man is not-just'

Here, however, it is not in the same way possible for diagonal statements to be true together, though it is possible sometimes.

These, then, are two pairs of opposites. There are others if something is added to 'not-man' as a sort of subject, thus: 19b37-20a3

[8] See *Prior Analytics* I 46.

(a) 'a not-man is just'	*(b)* 'a not-man is not-just'
(d) 'a not-man is not not-just'	*(c)* 'a not-man is not-just'

There will not be any more oppositions than these. These last are a group on their own separate from the others, in that they use 'not-man' as a name.

20a4-20a15 In cases where 'is' does not fit (e.g. with 'recovers' or 'walks') the verbs have the same effect when so placed as if 'is' were joined on, e.g.:

(a) 'every man recovers'	*(b)* 'every man does not recover'
(d) 'every not-man does not recover'	*(c)* 'every not-man recovers'

Here one must not say 'not every man' but must add the 'not', the negation, to 'man'. For 'every' does not signify a universal, but that it is taken universally. This is clear from the following.

(a) 'a man recovers'	*(b)* 'a man does not recover'
(d) 'a not-man does not recover'	*(c)* 'a not-man recovers'

For these differ from the previous ones in not being universal. So 'every' or 'no' additionally signify nothing other than that the affirmation or negation is about the name taken universally. Everything else, therefore, must be added unchanged.

20a16-20a30 Since the contrary negation of 'every animal is just' is that which signifies that no animal is just, obviously these will never be true together or of the same thing, but their opposites sometimes will (e.g. not every animal is just, and some animal is just). 'No man is just' follows from 'every man is not-just', while the opposite of this, 'not every man is not-just', follows from 'some man is just' (for there must be one). It is clear too that, with regard to particulars, if it is true, when asked something, to deny it, it is true also to affirm something. For instance: Is Socrates wise? No. Then Socrates is not-wise. With universals, on the other hand, the corresponding affirmation is not true, but the negation is true. For instance: Is every man wise? No. Then every man is not-wise. This is false, but 'then not every man is wise' is true; this is the opposite statement, the other is the contrary.

Names and verbs that are indefinite (and thereby opposite), such as 'not-man' and 'not-just', might be thought to be negations without a name and a verb. But they are not. For a negation must always be true or false; but one who says not-man—without adding anything else—has no more said something true or false (indeed rather less so) than one who says man. 20a31-20a36

'Every not-man is just' does not signify the same as any of the above, nor does its opposite, 'not every not-man is just'. But 'every not-man is not-just' signifies the same as 'no not-man is just'. 20a37-20a39

If names and verbs are transposed they still signify the same thing, e.g. a man is white—white is a man. For otherwise the same statement will have more than one negation, whereas we have shown that one has only one. For 'a man is white' has for negation 'a man is not white', while 'white is a man'—if it is not the same as 'a man is white'—will have for negation either 'white is not a not-man' or 'white is not a man'. But one of these is a negation of 'white is a not-man', the other of 'a man is white'. Thus there will be two negations of one statement. Clearly, then, if the name and the verb are transposed the same affirmation and negation are produced. 20b1-20b13

§ 11 · To affirm or deny one thing of many, or many of one, is not *one* affirmation or negation unless the many things together make up some one thing. I do not call them one if there exists one name but there is not some one thing they make up. For example, man is perhaps an animal and two-footed and tame, yet these do make up some one thing; whereas white and man and walking do not make up one thing. So if someone affirms some one thing of these it is not one affirmation; it is one spoken sound, but more than one affirmation. Similarly, if these are affirmed of one thing, that is more than one affirmation. So if a dialectical question demands as answer either the statement proposed or one side of a contradiction (the statement in fact being a side of one contradiction), there could not be *one* answer in these cases. For the question itself would not be one question, even if true. These matters have been discussed in the *Topics*.[9] (It is also clear that 'What is it?' is not a dialectical question either; for the question must give one the choice of stating whichever side of the contradiction one wishes. The questioner must specify further and ask whether man is this or not this.) 20b14-20b30

Of things predicated separately some can be predicated in combination, the whole predicate as one, other cannot. What then is the difference? For of a man it is true to say two-footed separately and animal separately, and also to say them as 20b31-21a6

[9] See esp. *Topics* VIII.