

Aristotle

On Interpretation

THE ELEMENTS OF SIGNIFICANT THOUGHT AND DISCOURSE

1

16a We must first establish what names and verbs are, then what negations, affirmations, statements, and sentences are.

Spoken sounds are symbols of affections in the soul, and written marks are symbols of spoken sounds; and just as written marks are not the same for everyone, neither are spoken sounds. But the primary things that these signify (the affections in the soul) are the same for everyone, and what these affections are likenesses of (actual things) are also the same for everyone. We have discussed these questions in *On the Soul*; they belong to another inquiry.

TRUTH AND FALSITY REQUIRE COMBINATION

10 Some thoughts in the soul are neither true nor false, while others must be one or the other; the same is true of spoken sounds. For falsity and truth involve combination and division. Names and verbs by themselves, when nothing is added (for instance, 'man' and 'pale') are like thoughts without combination and separation, since they are not yet either true or false. A sign of this is the fact that 'goatstag' signifies something but is not yet true or false unless 'is' or 'is not' is added, either without qualification or with reference to time.

SIMPLE AND COMPOUND NAMES

2

20 A name is a spoken sound that is significant by convention, without time, of which no part is significant in separation. For in 'Grancourt,' the 'court' does not

signify anything in itself, as it does in the phrase 'a grand court.' But complex names are not the same as simple ones; for in simple names the part is not at all significant, whereas in complex names the part has some force but does not signify anything in separation—for instance, 'fact' in 'artifact.' I say 'by convention' because nothing is a name by nature; something is a name only if it becomes a symbol. For even inarticulate noises—of beasts, for example—reveal something, but they are not names.

INDEFINITE NAMES

'Not-man' is not a name, nor is any established name rightly applied to it, since neither is it a sentence or a negation. Let us call it an indefinite name.

NAMES AND THEIR INFLECTIONS

'Philo's,' 'to-Philo,' and the like are not names but inflections of names. The same account applies to them as to names, except that a name with 'is' or 'was' or 'will be' added is always true or false, whereas an inflection with them added is neither true nor false. For example, in 'Philo's is' or 'Philo's is not' nothing is yet either true or false.

VERBS

3

A verb is [a spoken sound] of which no part signifies separately, and which additionally signifies time; it is a sign of things said of something else. By 'additionally signifies time,' I mean that, for instance, 'recovery' is a name but 'recovers' is a verb; for it additionally signifies something's holding now. And it is always a sign of something's holding, that is to say, of something's holding of a subject.

I do not call 'does not recover' and 'does not all verbs; for, although they additionally signify time and always hold of something, there is a difference for which there is no established name. Let us call them

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15 indefinite verbs, since they hold of anything whether it is or is not.

Similarly, 'recovered' and 'will-recover' are not verbs, but inflections of verbs. They differ from verbs because verbs additionally signify the present time, whereas inflections of verbs signify times outside the present.

20 A verb said just by itself is a name and signifies something, since the speaker fixes his thought and the hearer pauses; but it does not yet signify whether something is or is not. For 'being' or 'not being' is not a sign of an object (not even if you say 'what is' without addition); for by itself it is nothing, but it
25 additionally signifies some combination, which cannot be thought of without the components.

SENTENCES AND STATEMENTS

4

A sentence is a significant spoken sound, of which some part is significant in separation as an expression, not as an affirmation. I mean that 'animal,' for instance, signifies something, but not that it is or is not
30 (but if something is added, there will be an affirmation or negation), whereas the single syllables of 'animal' signify nothing. Nor is the 'ice' in 'mice' significant; here it is only a spoken sound. In the case of double names, as was said, a part signifies, but not by itself.
17a Every sentence is significant, not because it is a [naturally suitable] instrument but, as we said, by convention. But not every sentence is a statement; only those sentences that are true or false are statements. Not every sentence is true or false; a prayer, for instance, is a sentence but it is neither true nor false. Let us set aside these other cases, since inquiry into them is more appropriate for rhetoric or poetics; our present study concerns affirmations.

TYPES OF STATEMENTS ABOUT UNIVERSALS AND PARTICULARS

7

17a³⁸ Some things are universals, others are particulars. By
40 'universal' I mean what is naturally predicated of more than one thing; by 'particular,' what is not. For example, man is a universal, and Callias is a particular.

Necessarily, then, when one says that something

does or does not hold of something, one sometimes says this of a universal, sometimes of a particular. Now if one states universally of a universal that something does or does not hold, there will be contrary statements. (By 'stating universally of a universal,' I mean, for instance, 'Every man is pale,' 'No man is pale.') But when one states something of a universal, but not universally, the statements are not contrary, though contrary things may be revealed. (By 'stating of a universal but not universally,' I mean, for instance, 'A man is pale,' 'A man is not pale.' For although man is a universal; it is not used universally in the statement; for 'every' does not signify the universal, but rather signifies that it is used universally.)

In the case of what is predicated, it is not true to predicate a universal universally; for there will be no affirmation in which the universal is predicated universally of what is predicated, as in, for instance, 'Every man is every animal.'

CONTRADICTORY AND CONTRARY STATEMENTS

I call an affirmation and a negation contradictory opposites when what one signifies universally the other signifies not universally—for instance, 'Every man is pale' and 'Not every man is pale,' or 'No man is pale' and 'Some man is pale.' But the universal affirmation and the universal negation—for instance, 'Every man is just' and 'No man is just'—are contrary opposites. That is why they cannot both be true at the same time, but their [contradictory] opposites may both be true about the same thing—for instance, 'Not every man is pale' and 'Some man is pale.'

Of contradictory universal statements about a universal, one or the other must be true or false; similarly if they are about particulars—for instance, 'Socrates is pale' and 'Socrates is not pale.' But if they are about universals, but are not universal [statements], it is not always the case that one is true, the other false. For it is true to say at the same time that a man is pale and that a man is not pale, and that a man is handsome and that a man is not handsome; for if ugly, then not handsome. And if something is becoming F, it is also not F. This might seem strange at first sight, since 'A man is not pale' might appear to signify at the same time that no man is pale; but it does not signify the same, nor does it necessarily hold at the same time.

It is clear that a single affirmation has a single

negation. For the negation must deny the same thing
 40 that the affirmation affirms, and deny it of the same
 18a [subject]—either of a particular or of a universal,
 either universally or not universally, as, for instance,
 in 'Socrates is pale' and 'Socrates is not pale.' (But if
 something else is denied, or the same thing is denied
 of a different [subject], that will not be the opposite
 5 statement but a different one.) The opposite of 'Every
 man is pale' is 'Not every man is pale'; of 'Some man
 is pale,' 'No man is pale'; of 'A man is pale,' 'A man
 is not pale.'

We have explained, then, that a single affirmation
 10 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 contra-
 dictory pairs are true or false, and why and when they
 are true or false.

TRUTH AND FALSITY IN STATEMENTS ABOUT UNIVERSALS AND PARTICULARS

9

18a In the case of what is and what has been, then, it is
 28 necessary that the affirmation or negation be true or
 30 false. And in the case of universal statements about
 universals, it is always [necessary] for one to be true
 and the other false; and the same is true in the case
 of particulars, as we have said. But in the case of
 universals not spoken of universally, this is not neces-
 sary; we have also discussed this. But in the case of
 particulars that are going to be, it is not the same.

ARGUMENTS FOR FATALISM

For if every affirmation or negation is true or false,
 35 then it is also necessary that everything either is the
 case or is not the case. And so if someone says that
 something will be and another denies the same thing,
 clearly it is necessary for one of them to speak truly,
 if every affirmation is true or false. For both will not
 be the case at the same time in such cases.

18b For if it is true to say that something is pale or not
 pale, it is necessary for it to be pale or not pale; and
 if it is pale or not pale, it was true to affirm or deny
 this. And if it is not the case, one speaks falsely; and
 if one speaks falsely, it is not the case. Hence it is
 necessary for the affirmation or the negation to be
 true or false.

Therefore nothing either is or happens by chance 5
 or as chance has it; nor will it be nor not be [thus].
 Rather, everything [happens] from necessity and not
 as chance has it, since either the affirmer or the denier
 speaks truly. For otherwise, it might equally well hap-
 pen or not happen; for what happens as chance has
 it neither is nor will be any more this way than that.

Further, if something is pale now, it was true to 10
 say previously that it would be pale, so that it was
 always true to say of any thing that has happened that
 it would be. But if it was always true to say that it
 was or would be, it could not not be, or not be
 going to be. But if something cannot not happen, it
 is impossible for it not to happen; and what cannot
 not happen necessarily happens. Everything, then, 15
 that will be will be necessarily. Therefore, nothing
 will be as chance has it or by chance; for if it is by
 chance it is not from necessity.

A MISTAKEN REPLY

But it is not possible to say that neither is true—that,
 for example, it neither will be nor will not be. For,
 first, [if this is possible, then] though the affirmation
 is false, the negation is not true; and though the
 negation is false, it turns out [on this view] that the 20
 affirmation is not true.

Moreover, if it is true to say that it is pale and dark,
 both must be the case; and if [both] will be the case
 tomorrow, [both] must be the case tomorrow. But if
 it neither will nor will not be tomorrow, even so, the
 sea battle, for instance, will not happen as chance 25
 has it; for in this case, the sea battle would have to
 neither happen nor not happen.

CONSEQUENCES OF FATALISM

These and others like them are the absurd conse-
 quences if in every affirmation and negation (either
 about universals spoken of universally or about partic-
 ulars) it is necessary that one of the opposites be true
 and the other false, and nothing happens as chance 30
 has it, but all things are and happen from necessity.
 Hence there would be no need to deliberate or to
 take trouble, thinking that if we do this, that will be,
 and if we do not, it will not be; for it might well be
 that ten thousand years ago one person said that this 35
 would be and another denied it, so that whichever it
 was true to affirm at that time will be so from necessity.

Nor does it make a difference whether or not anyone made the contradictory statements; for clearly things are thus 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 ^{19a} is this any more so for ten thousand years ago than for any other time.

Hence if in the whole of time things were such that one or the other statement was true, it was necessary for this to happen, and each thing that happened was always such as to happen from necessity. For if ⁵ someone has said truly that something will happen, it cannot not happen; and it was always true to say of something that has happened that it would be.

ARGUMENTS AGAINST FATALISM

But surely this is impossible. For we see that both deliberation and action originate things that will be; and, in general, we see in things that are not always ¹⁰ in actuality that there is the possibility both of being and of not being; in these cases both being and not being, and hence both happening and not happening, are possible.

We find that this is clearly true of many things. It is possible, for instance, for this cloak to be cut up, though [in fact] it will not be cut up but will wear out first instead. Similarly, its not being cut up is also ¹⁵ possible; for its wearing out first would not have been the case unless its not being cut up were possible. Hence the same is true for other things that happen, since this sort of possibility is ascribed to many of them.

Evidently, then, not everything is or happens from ²⁰ necessity. Rather, some things happen as chance has it, and the affirmation is no more true than the negation. In other cases, one alternative [happens] more than the other and happens usually, but it is still possible for the other to happen and for the first not to happen.

It is necessary for what is, whenever it is, to be, and for what is not, whenever it is not, not to be. But ²⁵ not everything that is necessarily is; and not everything that is not necessarily is not. For everything's being from necessity when it is is not the same as everything's being from necessity without qualification; and the same is true of what is not.

The same argument also applies to contradictories.

It is necessary for everything either to be or not to be, and indeed to be going to be or not be going to be. But one cannot divide [the contradictories] and say that one or the other is necessary. I mean that, ³⁰ for instance, 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 happen tomorrow, nor is it [necessary] for one not to happen. It is necessary, however, for it either to happen or not to happen.

And so, since the truth of statements corresponds to how things are, it is clear that, for however many things are as chance has it and are such as to admit ³⁵ contraries, it is necessary for the same to be true of the contradictories. This is just what happens with things that neither always are nor always are not. For in these cases it is necessary for one of the contradictories to be true and the other false. It is not, however, [necessary] for this or that one [more than the other one to be true or false]. Rather, [it is true or false] as chance has it; or [in the case of things that happen usually] one is more true than the other, but not thereby true or false [without qualification].

CONCLUSION

Clearly, then, it is not necessary that of every affirma- ^{19b} tion and negation of opposites, one is true and one false. For what holds for things that are [always] does not also hold for things that are not [always] but are capable of being and of not being; in these cases it is as we have said.

PUZZLES ABOUT POSSIBILITY AND NEGATION

12

Now that we have determined these points, we should ^{21a34} consider the relation between negations and affirma- ³⁵ tions of *possible to be* and *not possible to be*, and of *admitting of being* and *not admitting of being*, and about what is impossible and what is necessary. For these questions raise some puzzles.

For suppose that complexes are contradictories if they are ordered in accordance with being and not ^{21b} being. For instance, the negation of *being a man* is *not being a man* rather than *being a not-man*, and the negation of *being a pale man* is *not being a pale man*, rather than *being a not-pale man*. For [other- wise] if either the affirmation or the negation [of a

to be or not to be going to radictories] and y. I mean that, 30 to be or not to necessary for is it [necessary] y, however, for

its corresponds however many ch as to admit 35 e to be true of happens with ys are not. For re contradicto- not, however, than the other ue or false] as s that happen other, but not tion].

every affirma- 19b true and one [always] does ways] but are these cases it

ATION

ts, we should 21a34 and affirma- 35 o be, and of f being, and cessary. For

adictories if ing and not 21b ng a man is ot-man, and being a pale For [other- gation [of a

5 given predicate] is true of everything, then it will be true to say that a log is a not-pale man. If this is true, then it follows that in cases where being is not added, what is said instead of being will have the same effect. For instance, the negation of 'a man walks' is not 'a not-man walks,' but 'a man does not walk'; for there 10 is no difference between saying that a man walks and saying that a man is walking.

And so, if this is true in every case, then it also follows that the negation of possible to be is possible not to be, rather than not possible to be. On the other hand, it seems that whatever is possible to be is also possible not to be; for whatever can be cut up or can walk can also not walk and not be cut up. The reason 15 for this is that whatever can do these things does not always actually do them, so that the negation will also belong to it; for what can walk can also not walk, and what can be seen can also not be seen. But it is impossible for opposite assertions to be true of the same subject. Hence this [-possible not to be-] is 20 not the negation [of possible to be]. For it follows from what we have said that either the same thing is both said and negated of the same subject at the same time, or affirmation and negation do not result from the addition of being and not being.

SOLUTION TO THE PUZZLES

If, then, the first alternative is impossible, the second is to be chosen; hence the negation of possible to be is not possible to be. The same argument also applies 25 to admitting of being; for the negation of this is not admitting of being. And this is also true in the same way in the other cases—for instance, necessary and impossible. In the previous cases being and not being were additions, and the subjects were pale and man, 30 whereas in this case being counts as a subject, while possible and admitting of being are additions that determine possibility and impossibility in the case of being, just as in the previous cases being or not being determined truth.

35 The negation of possible not to be is not possible not to be. That is why the [statements] 'it is possible to be' and 'it is possible not to be' might actually seem to follow from each other. For whatever can be can also not be; for these statements do not contradict 22a each other. But possible to be and not possible to be never hold at the same time, since they are opposites.

Likewise, possible not to be and not possible not to be never hold at the same time. In the same way, the negation of necessary to be is not necessary not to be, 5 but not necessary to be; and the negation of necessary not to be is not necessary not to be. Again, the negation of impossible to be is not impossible not to be, but not impossible to be; and the negation of impossible not to be is not impossible not to be. And in general, as we have said, one must count being and not being 10 as the subjects, and attach these [qualifications] to being and not being to produce affirmation and negation. And one must suppose the opposite expressions to be these: possible and not possible, admitting and not admitting, impossible and not impossible, neces- sary and not necessary, true and not true.

THE RELATIONS BETWEEN THE MODALITIES

13

On this basis one thing follows from another in a 15 reasonable way. Admitting of being follows from possible to be, and the latter follows reciprocally from the former. Moreover, both not impossible to be and not necessary to be follow from possible to be. Both not 20 necessary not to be and not impossible not to be follow from possible not to be and admitting of not being. Necessary not to be and impossible to be follow from not possible to be and not admitting of being. Necessary to be and impossible not to be follow from not possible not to be and from not admitting of not being. What we are saying may be studied in the following table:

<p>A</p> <ol style="list-style-type: none"> 1. possible to be 2. admitting of being 3. not impossible to be 4. not necessary to be <p>C</p> <ol style="list-style-type: none"> 1. possible not to be 2. admitting of not being 3. not impossible not to be 4. not necessary not to be 	<p>B</p> <ol style="list-style-type: none"> not possible to be 25 not admitting of being impossible to be necessary not to be <p>D</p> <ol style="list-style-type: none"> not possible not to be not admitting of not being 30 impossible not to be necessary to be
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Impossible and not impossible follow from admit- ting and possible, and from not admitting and not

35 *possible*, contradictorily, but conversely. For the negation of *impossible* follows from *possible to be*, and the affirmation from the negation, i.e., *impossible to be* from *not possible to be*—for *impossible to be* is an affirmation, whereas *not impossible* is a negation.

But we must see what is true in the case of *necessary*. It is evident, then, that the same does not apply here, 22b but rather the contraries follow, whereas the contradictories are separated. For *not necessary to be* is not the negation of *necessary not to be*, since both of these admit of being true of the same thing—for what is necessary not to be is not necessary to be.

10 But perhaps this arrangement of the negations of *necessary* is impossible; for what is necessary to be is also possible to be. Otherwise the negation will follow, since it is necessary either to affirm or deny it, so that if it is not possible to be, it is impossible to be; but then what is necessary to be will turn out to be impossible to 15 be, which is absurd. And yet, *not impossible to be* follows from *possible to be*, and *not necessary to be* follows from *not impossible to be*, so that what is necessary to be turns out to be not necessary to be, which is absurd. And yet, neither *necessary to be* nor *necessary not to be* follows from *possible to be*; for in this case [*—possible to be—*], both [being and not 20 being] admit of happening, whereas, whenever one [of *necessary* and *not necessary*] is true, [the conjunction of] those others [*—possible to be* and *possible not to be—*] will no longer be true. For something is possible to be and not to be at the same time, but if it is necessary for it to be or not to be, it will not be possible to be both.

The remaining option, then, is that *not necessary not to be* follows from *possible to be*; for *not necessary not to be* is also true of what is necessary to be. For this also turns out to be the contradictory to what 25 follows from *not possible to be*; for *impossible to be* and *necessary not to be* follow from *not possible to be*, and the negation of *necessary not to be* is *not necessary not to be*. These contradictories, then, also follow in the way described, and nothing impossible results if they are arranged this way.

b3 The reason these do not follow in the same way 5 as the others is that *impossible* has the same force as *necessary*, when it is applied in the contrary way. For if something is impossible to be, then it is necessary—not necessary to be, but necessary not to be; and if something is impossible not to be, then it is necessary

to be. And so if those follow from *possible* and *not possible* in the same way, then these follow in a contrary way, since *necessary* and *impossible* signify the same, except that, as we said, they are applied con- 10 versely.

FURTHER QUESTIONS ABOUT POSSIBILITY AND POTENTIALITY

One might be puzzled about whether *possible to be* b29 follows from *necessary to be*. For if it does not follow, then its contradictory—*not possible to be*—will follow; and if one says that this is not the contradictory, then one must say that *possible not to be* is the contradictory; and both of these are false of what is necessary to be. And yet, on the other hand, it seems that whatever can be cut up can also not be cut up, and that whatever can be can also not be, so that what is 35 necessary to be will turn out to admit of not being, which is false.

It is evident, then, that not everything that can be or can walk can also be the opposite, and that there are cases in which this [presence of both opposites] is not true. This is true first of all in the case of things with nonrational potentialities; fire, for instance, has the potentiality to heat, and has a nonrational potenti- 23a ality. Now in the case of potentialities involving reason, the same potentiality is for more than one thing, and indeed for contraries. This is not true, however, in the case of all nonrational potentialities, but, as we said, fire cannot both heat and not heat. Nor is it true in the case of things that are always in actuality; but some things, even insofar as they have nonrational 5 potentialities, are at the same time capable of producing opposites. Our remark, however, was meant to make it clear that not every potentiality—not even among potentialities of the same kind—is for opposites.

Now some potentialities are homonymous, since things are said to be potentially something in more than one way. In one case [x is said to have a potentiality for F] because it is true [that x is F], in that it is actually [F]; for instance, something is said to have a potentiality for walking because it is walking, and in general something is said to have a potentiality 10 because it is already actualizing the potentiality it is said to have. In another case [x is said to have a potentiality for F] because it might actualize [the

potentiality]; for instance, something is said to have a potentiality for walking because it might walk. This second sort of potentiality applies only to things that can be moved; the first sort also applies to immovable things. In both cases it is true to say, both of what is now walking and in actuality and of what might walk, that [if it has the potentiality to walk or be], it is not impossible for it to walk or be. It is not true, then, to ascribe the second sort of potentiality to what is necessary without qualification, but it is true to ascribe the first sort to it.

And so, since the universal follows from the partial, *possible to be*—though not every sort—follows from

necessary to be. And presumably in fact what is necessary and what is not necessary are the principles of everything's being or not being, and the other cases should be considered as following from these.

It is evident from what has been said, then, that what is necessarily also is in actuality, so that if everlasting things are prior, actuality is also prior to potentiality. Moreover, some things—the primary substances—are actualities without potentiality, while other things have potentiality; these latter are prior in nature [to the potentiality] but posterior in time. Other things are never actualities but are merely potentialities.

Amv