

CHAPTER I

THE SCOPE OF LOGIC

§ 1. Logic should be defined as the theory of understanding; such is the liberal and dignified tradition of Oxford philosophy which is embodied in the actual teaching of the University. Logic in a narrower sense, as the theory of the forms of argument, is a very good study in its way; but it is a matter of subordinate interest and should take some different name.

The understanding which the logician studies, in the main, is ordinary understanding, the intellectual process which we exhibit in our conduct from hour to hour; though any treatise which professes to be comprehensive should also give a theory of that most advanced and systematic form of understanding which we call Science. The term 'understanding,' as currently used, is very wide, including every sort of intellectual process from the lowest to the highest. Consider some everyday examples: a weasel understands how to hunt a rabbit; Messrs Braid and Vardon understand golf; a chauffeur understands the engine

THE SCOPE OF LOGIC

S. I



LOGIC IS THE THEORY [ch.

of his car; the Registrar of this University understands his duties; the Professor of Anthropology understands the subject of his chair. Evidently the term is applicable not only to the most abstract thinking of science, and to those functions of business management which demand both cultured and practical abilities in equal measure; but also to technical knowledge, to the bodily skill of motor coordination, and even to animal intelligence. And the scope of the logician should be no less comprehensive; the 'principles of understanding' should be principles exemplified at every level of intellectual activity.

§ 2. Logic then is pre-eminently a study of the actual; its purpose is to explain the processes of our own minds and the minds of persons whom we know. This needs to be said in view of the frequent assertion that the business of logic is with a priori laws of thought which exist, as the laws of mathematics are supposed to exist, quite independent of anything which exemplifies them. argument against the a priori logician is perplexed by the fact that he seldom makes it plain whether the a priori laws are embodied in actual thinking or not. If not, then my line of answer to him would be that there must be two sorts of logic, one the a priori logic, which the apriorist may keep to himself; and the other the study of actual thinking, which is the subject of the present volume.



1] OF UNDERSTANDING.

But if the apriorist asserts that his laws are embodied in actual thinking and constitute its governing principles, then we must ask him to tell us what they are. The question will reduce him to confess that he can produce no laws such as could be put beside those of mathematics. The only a priori laws of thought which have ever been propounded, are either futile, attenuated generalizations such as the Law of Identity; or else the rules of the Syllogism, for which nobody now has a good word to say.

A little reflection will show why there can be no such laws of thought as the a priori logician desiderates; the facts of understanding are very different from those of matter and motion, which are the province of the mathematician. Matter and motion present definite measurable uniformities capable of being formulated into exact laws on which mathematical calculations can be based. Not so the facts of understanding: a certain regularity and systematic arrangement is discernible in them; but nothing to which measurement can be applied.

The whole notion of a priori laws of thought is an anachronism, the ghost of the old formal logic haunting our schools long after its real life is ended. The logic of the Middle Ages, indeed all their science, was carried on by disputation; and thus the medieval logicians came to believe that their

OF LOGIC

I---2

3



4 IT DEALS WITH ALL [ch.

rules of disputation, that is, the syllogistic rules, were of infinite importance and unshakable validity, no less certain than the first principles of mathematics, no less independent of personal experience than the first principles of morals and revealed religion. The conservative logician of the present day still holds to it that there must be a priori laws of thought; though, having lost faith in the syllogism, he cannot tell us what they are.

§ 3. Granted however that logic should explain the actual, may not my definition be too wide? Does the whole of understanding come within the purview of the logician? I hold that it does, in spite of the weight of authority against me. One of the leading authorities, Professor Boyce Gibson, has laid it down in his Problem of Logic that "logic is the mind's systematic attempt to understand the nature and conditions of the search after truth." However this dictum be interpreted, it seems to me to make an unjustifiable limitation of the field of inquiry. I admit, of course, that the search after truth is very important; and logic is certainly bound to give an account of it. But we use our understanding for very much more than for searching after truth. The main use of understanding is to get what we want in order to live; and we cannot live on truth. Truth-seeking and truth-finding are subordinate to the formation of purposes and the satisfaction of desires.



1] ACTS OF UNDERSTANDING.

Consider the difficulties which arise from Professor Gibson's limitation. If logic deals with nothing but the search after truth, what account can we give of a work of fiction? Take for example such a work as Waverley. It is composed of assertions indistinguishable outwardly from a history of real events. Now would Professor Gibson argue that the historical assertions have logical quality; but that the assertions in Waverley have no logical quality? Or, if the latter possess logical quality, do they possess it in virtue of searching after truth? Again, consider the work as a whole. Taking Waverley as typical of the good novel, surely we can say that it has more logicality than a bad shilling-shocker. To the plain man it would seem that the story of a good novel is just as logical as a history of real life; and this because the good novel represents its characters as forming rational purposes and as working rationally to achieve them: while in the bad novel there is very little meaning or consistency. I do not see how this argument can be parried, except by the weak reply that the work of fiction is logical in so far as it "holds the mirror up to nature." A fiction may not intend to hold up a mirror at all; it may be trying to make a change in nature, like Dickens' account of Dotheboys Hall, or to laugh at nature, like Samuel Butler's In a fictitious writing fulness of meaning Erehwon.

© in this web service Cambridge University Press

OF LOGIC

ζ



6 UNJUSTIFIABLE EXCLUSIONS [ch.

and consistency, not fidelity to nature, are what makes it logical. Which of the comedies of Aristophanes have the most logic, the fantastic ones or the more common-place? And which of them professes to devote itself to the search after truth? If fiction is excluded from logic, a fortiori all lies must be. 'No great loss,' the reader may say. Well, perhaps not; but surely some lies are more logical than others.

But in his actual treatment, Professor Gibson narrows the field of inquiry even more than his definition requires. "The nature and conditions of the search after truth" ought certainly to include such acts of thought as questions, and probably even optatives and imperatives; for we cannot search after truth without asking questions, and in most kinds of search we have to express wishes and issue commands. But The Problem of Logic in its actual treatment nowhere recognizes these kinds of logical expression. Here Prof. Gibson is in agreement with the majority of his colleagues; conservative logicians definitely exclude such things from the purview of their science.

But can any expressions of understanding be rightfully excluded? Surely they all have something logical about them. The question, 'What is the difference between a postage-stamp and a naughty boy?' has evidently less meaning and therefore less logicality than the question, 'What



FROM LOGIC.

7

happened at the last General Election?' If wishes, commands and questions have meaning, what is the science which treats of them as having meaning? Is it psychology? If so, the boundary between psychology and logic becomes difficult to draw. It would seem that, when we say, 'The Liberals won the last election,' our utterance as having meaning is studied by logic; but that, when we say 'Did the Liberals win the last election?' it is studied by psychology. This hardly seems satisfactory, and it is certainly not a division which is admitted by psychologists. Those writers ought to have their chapters on optatives, commands and questions as intelligible utterances; but no such chapters exist.

But this limitation of the field of logic is trifling compared with that which results from the exclusion of prospective judgments. Take a simple example, 'The Liberals will win the next election'—here is a judgment no less categorical in form than the time-honoured, 'All men are mortal,' and no less entitled to claim its due place in logical theory. As a matter of fact such judgments are invariably omitted by the current text-books. My own opinion is that the prospective faculty of understanding is by far the most important of all, and that the due recognition of it will involve a thorough reconstruction of logic.

The upshot of my argument then is that you of Logic



8 SCOPE OF [ch.

cannot take one part of human understanding and put a ring-fence round it and say, 'This is the province of logic; the rest may be dealt with by some other science, but certainly not by logic.' My scheme of logic includes much more than the acts of understanding which are capable of verbal expression, such as wishes, commands, questions and fictions: but it at least includes them. I do not think that any unprejudiced student will maintain that such utterances as, 'May the Liberals win the next election, 'Liberals, win the next election,' 'Did the Liberals win the last election?' 'The Liberals will win the next election,' 'The Tories won the last election' (false), differ generically from 'The Liberals won the last election.' They all represent acts of understanding and, as such, come under one science. The statements which we exclude from logic (except so far as they come under 'Fallacies') are nonsensical statements -statements with no purpose, or none that a healthy mind can understand; or statements that might show purpose in certain contexts, but show none in the context in which they actually occur.

§ 4. The present work is an introduction to logic, not in the sense that it works quickly over the main field of study, but in the sense that it considers with fulness some preliminary matters which seem to need special consideration at the present juncture of philosophy. Its first business



THE PRESENT WORK.

is the fundamental question, What is understanding? This, the layman might suppose, is a question which has been settled long ago. The expert, however, knows otherwise; it is a question which logical treatises usually avoid. Mr Joseph's Introduction to Logic, for example, begins by defining logic as "the science of thought"; but he does not tell us what thought is. Several years ago the late Dr Hutchison Stirling published a book with the title, What is Thought? I have always held it creditable to him that he put the question so squarely; though the purport of his answer was far from plain.

It is no blame to any logician that he cannot define understanding; understanding is too ultimate for definition: but it can be analyzed to some extent, and the essential part of it described. My argument will be that understanding is spiritual; it is not sensational, still less mechanical or material. Against these false theories idealist logicians have always protested; but the grounds of their protest seem to me inadequate. I think that the true line of argument against the sensationalist and materialist is to show both that understanding is an active experience, and that the mind in doing acts of understanding has powers which do not belong to any material object or to sensation. In following up the argument it will be necessary to survey some other functions and qualities of OF LOGIC

© in this web service Cambridge University Press



10 LOGIC SHOULD NOT BE [ch.

soul-life. Altogether the full answer to the question 'What is understanding?' will be a somewhat extensive affair.

This is the first part of my task; the other part is to show the relation of understanding to that element of the soul which I call passion. The second part indeed is necessary to complete the first; it is impossible fully to explain what understanding is without showing how it is related to passion.

In recent years, writings of a pragmatist tendency have made the world familiar with what is termed 'Intellectualism.' It is intellectualism to treat the intellectual element of soul-life too much in separation from the passionate or dynamic. This is a kind of mistake which is more often found in the early stages of science. The first business of the scientist is to analyze and make distinctions; his fault at that stage is to regard the distinctions as absolute. Nothing can exceed the separateness of human faculties in the psychology of Plato. The maturer work of science is to see the deeper connections; established distinctions are not given up, but the things distinguished are recognized to be elements in a wider scheme. In all the sciences which deal with living things, the tendency to see things together has been vastly strengthened by the progress of biological science. It is generally agreed now that the soul