

CHAPTER I

THE PROPOSITION

§ 1. A SYSTEMATIC treatment of logic must begin by regarding the proposition as the unit from which the whole body of logical principles may be developed. A proposition is that of which truth and falsity can be significantly predicated. Some logicians have taken the *judgment* as their central topic, and it will be necessary to examine the distinction between what I have called a proposition and what appears to be meant by a judgment. It has been very generally held that the proposition is the *verbal expression* of the judgment; this, however, seems to be an error, because such characterisations as true or false cannot be predicated of a mere verbal expression, for which appropriate adjectives would be 'obscure,' 'ungrammatical,' 'ambiguous,' etc. There appear then to be three notions which, though intimately connected, must be clearly distinguished: namely (1) what may be called the sentence; (2) the proposition; and (3) the judgment. The sentence may be summarily defined as the verbal expression of a judgment or of a proposition; it remains, therefore, to distinguish and interrelate the proposition and the judgment.

The natural use of the term judgment is to denote an act or attitude or process which may constitute an incident in the mental history of an individual. As so conceived, we should have further to distinguish the

changing phases of a process (which might alternately involve interrogation, doubt, tentative affirmation or negation) from the terminus of such process in which a final decision replaces the variations undergone during what is commonly called suspense of judgment. It would thus be more natural to speak of passing judgment upon a proposition proposed in thought than to identify judgment as such with the proposition. This more natural usage (which is that which I shall adopt) entails the necessity of recognising the distinction between various attitudes of thought on the one hand, and the object towards which that thought may be directed on the other; and even further, when necessary, of recognising the adoption of any of these alterable attitudes of thought as a datable occurrence within the total experience of some one individual thinker. There will thus be many fundamental attributes that must be predicated of the judgment upon a proposition different from, and often diametrically opposed to, those attributes that are to be predicated of the proposition itself.

In this account the judgment is the more comprehensive or concrete term, since when seriously treated it involves the two terms thinker and proposition and, in addition, the occurrent and alterable relation that may subsist between them. In thus drawing attention to mental process in my exposition of logical doctrine, I am taking what has been unfortunately termed a 'subjective' point of view. For the term 'subjective' should be substituted 'epistemic'; and in discarding the familiar antithesis *subjective* and *objective*, it is better for the purposes of Logic to substitute the antithesis *epistemic* and *constitutive*. The epistemic side of logical doctrine points

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to the quite universally acknowledged kinship of Logic with Epistemology, and, in using this term in preference to subjective, we can avoid any confusion between what belongs to Psychology as opposed to what belongs to Logic. As to the term constitutive—a term for which philosophers are indebted to Kant—it has the force of ‘objective’ inasmuch as it points to the constitution of such an object of thought-construction as the proposition when treated independently of this or that thinker. I may anticipate what will be treated fully in the later part of logical doctrine, by pointing out that the distinction and connection between the epistemic and constitutive sides of logical problems plays an important part in the theory of Probability; and, in my view, it ought to assume the same importance throughout the whole of the study of Logic.

Now, as regards the relation of the proposition to any such act as may be called judgment, my special contention is that the proposition cannot be usefully defined in isolation, but only in connection with some such attitude or act of thought; and I prefer to take the notion of *asserting* as central amongst these variations of attitude—which will therefore be spoken of as variations in the assertive attitude. I shall also maintain that the fundamental adjectives true and false which are (perhaps universally) predicated of mere propositions as such, derive their significance from the fact that the proposition is not so to speak a self-subsistent entity, but only a factor in the concrete act of judgment. Thus, though we may predicate of a certain proposition—say ‘matter exists’—that it is true or that it is false, what this ultimately means is, that any and every thinker who might

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at any time assert the proposition would be either exempt or not exempt from error. In other words, the criticism which reason may offer is directed—not to the proposition—but to the *asserting* of the proposition; and hence the customary expression that such and such a proposition is false merely means that anyone's assertion of the proposition would be erroneous. The equivalence of these two forms of criticism follows from the fundamental principle that an attitude of assertion is to be approved or condemned in total independence of the person asserting or of the time of his assertion, and in exclusive dependence upon the content of his assertion. This fundamental principle of Logic will come up for detailed treatment when the so-called Laws of Thought are explicitly discussed. In order to mark the important distinction, and at the same time the close connection, between the proposition and the act of assertion, I propose to take the term 'assertum' as a synonym for 'proposition' when such terminology may seem convenient. Thus, the assertum will coincide, not exactly with what *has been* asserted, but with what is in its nature assertible.

§ 2. Many philosophers have used the term belief in its various phases as a substitute either for judgment or for assertion; in fact, when the mental aspect of any problem assumes special prominence, the term belief as applied to the proposition is more naturally suggested than any other. While the object of belief is always a proposition, the proposition may be merely entertained in thought for future consideration, either without being believed, or in a more or less specific attitude opposed to belief, such as disbelief or doubt. To doubt

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a proposition implies that we neither believe nor disbelieve it, while belief and disbelief as opposed to doubt have in common the mental characteristic of assurance. Thus there are three opposed attitudes towards a proposition, included in the distinction between assurance and doubt;—the former of which may be either (assured) belief or (assured) disbelief, and the latter of which appears further to be susceptible of varying felt degrees. The close association amongst all the terms here introduced brings into obvious prominence the mental side, which such terms as judgment or assertion seem hardly to emphasise. It would however, I think, be found that there is in reality no relevant distinction between the implications of the two terms 'judgment' and 'belief.' Those logicians who have spoken exclusively of judgment, conception, reasoning, etc., have had in view more complicated processes, the products of which have been explicitly formulated; while those who have used belief and cognate terms have included more primitive and simple processes, the products of which may not have been explicitly formulated. Since the traditional logic has treated *only* the more developed processes, the term judgment and its associates is perhaps preferable for this somewhat limited view of the scope of Logic, while the use of the term belief—which must certainly be understood to include the higher as well as the 'lower processes—points to a wider conception of the province of Logic. To put the matter shortly, I hold it to be of fundamental importance to insist that there is *some* factor common to the lower and higher stages, and that this common factor, to which the name belief has been given, is necessarily directed to what

in Logic is called a proposition¹. Assertion, in the sense here adopted, is to be understood to involve belief, and may be defined as equivalent to *conscious belief*. This definition restricts the term in two ways: in that, firstly, to assert does not merely mean to *utter* (without belief); and secondly, merely to believe *unconsciously* is not to assert.

§ 3. In speaking of variations of attitude towards the proposition, an assumption is involved that there is a single entity called the proposition that is the same whatever may be the attitude adopted, towards it. Ordinary language supplies us with names for such different attitudes along with cognate names for the proposition: thus we associate 'to assume' with 'an assumption'; 'to suppose' with 'a supposition'; 'to propose' with 'a proposition'; 'to postulate' with 'a postulate'; 'to presume' with 'a presumption'; etc.² Consider the two verbs 'to assume' and 'to presume.' It will be acknowledged that these denote attitudes between which some subtle distinction may be under-

¹ Readers of Psychology should be warned that, when psychologists contrast 'imagination' with 'belief,' each term indicates an attitude to a proposition; while, when they contrast 'imagination' with 'perception,' the processes to which they refer do not involve any attitude towards a proposition. There is no common element of meaning in these two applications of the word 'imagination.'

² In further illustration of this point we may select certain prominent logical terms such as hypothesis, postulate, axiom. Each of these terms indicates the peculiar attitude *to be* assumed towards the proposition in question by *any* thinker: thus a hypothesis stands for a proposition which awaits further scientific investigation before being finally accepted or rejected; a postulate stands for a proposition which cannot be brought to the test of experience, but the truth of which is *demande*d by the thinker; and an axiom is a proposition the truth of which is self-evident to the thinker.

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stood; and thus it might appear that in correspondence with this distinction there must be a similar subtle distinction between an assumption and a presumption. Unfortunately substantival words such as these are apt to suggest a difference in nature between that which in the one case is presumed and in the other assumed; but this suggestion must be rejected, and it must be maintained on the contrary that the content of a proposition preserves its identity unmodified, independently of all variations of assertive attitude and of personal and temporal reference. This independence holds also in regard to what has been termed 'logical' in contrast with 'psychological' assertion. The phrase *logically asserted*, applied to this or that proposition, is only metaphorically legitimate, and literally equivalent to 'asserted on purely rational grounds by any or all rational persons.' In other words, the predicate 'asserted' conveys no meaning when taken apart from a person asserting.

Adopting as we do the general view that no logical treatment is finally sound which does not take account of the mental attitude in thought, it follows that the fundamental terms 'true' and 'false' can only derive their meaning from the point of view of criticising a certain possible mental attitude. We are thus bound to distinguish the object of this attitude (the assertum) from the attitude itself which may vary independently of the object; but we can only avoid contradiction or vagueness if, while permitting ourselves to distinguish between the attitude and its object, we at the same time refuse to separate them. We may further explain the adjectives 'true' and 'false' so as to bring out what

characterises logic in contrast with—or rather in its relation to—psychology: namely that logic formulates standards or imperatives which as such have no significance except as imposed upon mental acts. Thus we may say that the application of the adjectives true and false coincides with the application of the imperatives ‘to be accepted’ and ‘to be rejected’ respectively. We may add that these imperatives are imposed by the thinker—in the exercise of his reason—upon himself. In maintaining this coincidence between the two imperatives on the one hand and the two adjectives (true and false) on the other, it must not be taken that we are able thus to *define* the adjectives true and false. On the contrary, we are forced to insist that they are indefinable. We are only indicating that a reference to mental attitude is presupposed when Logic recognises the distinction between true and false in its formulation of standards for testing the correctness of a judgment or assertion.

§ 4. So far we have taken the proposition *as a unit* of which the adjectives true and false may be predicated. Before proceeding to *analyse* the proposition into its component parts, a word must be said in regard to the relation of logic to universal grammar, and in particular the relation between grammatical and logical analysis. Properly speaking, grammatical analysis cannot be regarded as dealing merely with words and their combinations. The understanding of the grammatical structure of a sentence—which includes such relations as those of subject to predicate, and of subordinate to co-ordinate clauses—requires us to penetrate below the mere verbal construction and to consider the formal structure of

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thought. Hence, on the one hand, grammar cannot be intelligently studied unless it is treated as a department of logic; and, on the other hand, logic cannot proceed without such a preliminary account of linguistic structure as is commonly relegated to grammar. In short, universal grammar (as it is called) must be subsumed under Logic. On this view, a slight alteration in grammatical nomenclature will be required, whereby, for the usual names of the parts of speech, we substitute substantive-word or substantive-phrase, adjective-word or adjective-phrase, preposition-word or phrase, etc., reserving the terms substantive, adjective, preposition, etc., for the different kinds of entity to which the several parts of speech correspond.

§ 5. To turn now to the analysis of the proposition. We find that in every proposition we are determining *in* thought the character of an object presented *to* thought to be thus determined. In the most fundamental sense, then, we may speak of a determinandum and a determinans: the determinandum is defined as what is presented *to be* determined or characterised by thought or cognition; the determinans as what *does* characterise or determine in thought that which is given to be determined. We shall regard the substantive (used in its widest grammatical sense) as the determinandum, and the adjective as the determinans. Neither of these terms can be defined except in their relation to one another as each functions in a possible proposition. As it has frequently been said, the proposition is *par excellence* the unit of thought. This dictum means that the logical nature of any components into which we may analyse the proposition can only be defined by the mode in

which they enter into relation within it. For example, when I use *determinandum* for the substantive and *determinans* for the adjective, I am only defining the one in terms of the other, inasmuch as the common factor 'determine' is contained in both. This account goes beyond that which has become commonplace among many philosophers, namely, that the subject of a proposition is ultimately something which cannot be defined in the way in which a predicate or adjective can be defined; for to this we have to add that the predicate of a proposition is ultimately something which cannot be defined in the way in which a subject or substantive can be defined. These two statements present the natures of subject and predicate purely negatively, the positive element being supplied by the terms 'determinans' and 'determinandum.'

We have now to examine the nature of the connection involved in every case where adjective and substantive are joined; for example 'a cold sensation,' 'a tall man.' In order to understand the verbal juxtaposition of substantive and adjective, we must recognise a latent element of form in this construct, which differentiates it from other constructs—which also are necessarily expressed by a juxtaposition of words. This element of form constitutes what I shall call the *characterising tie*. The general term 'tie' is used to denote what is not a component of a construct, but is involved in understanding the specific form of unity that gives significance to the construct; and the specific term 'characterising tie' denotes what is involved in understanding the junction of substantive with adjective. The invariable verbal expression for the characterising tie is the verb