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NEGATION AND TRUTH

NEGATIVE FACT, NEGATION AND TRUTH

BY

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" It is an interesting and scholarly contribution. "

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TO
THE SWEET MEMORY OF
MY FATHER
AND
MY MOTHER

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PREFACE

This book is substantially the thesis submitted and approved for the degree of Doctor of Philosophy of the University of Calcutta in 1940. The central problem dealt with in the book is negation. The discussion of the subject begins with a consideration of the negative proposition and ends with an analysis of negation from various points of view. The traditional division of propositions into affirmative and negative is first examined, and then it is sought to be established that there is nothing like negative fact, although it is insisted that in the situation of negation the ideal has as important a part to play as the real.

In the course of the discussion many other interconnected problems present themselves. But it is not found convenient to go into them all. Those are in the main considered which appear to be more relevant than the others. The question whether negation is judgment or not brings up the problem of truth. A whole chapter, though a short one, is devoted to the topic. But no comment is brought to bear on the elaboration of the theme. A constructive point of view often gets crystallized through criticism. This course is, however, avoided there inasmuch as it would entail much digression. An attempt is nevertheless made to supply the deficiency by appending to the volume a critique of the prominent theories of truth. But I regret to say that the task is left unfinished.

Then the postulates of experience are explained, and the main theories of modality and inference are critically examined with a view to construction. And

it is now for the readers to judge whether the effort, successful or unsuccessful, is worth making.

I take this opportunity to express my deep obligations to the authorities of the Calcutta University for undertaking the publication of the book at a time like this when the cost of paper and printing is abnormally high. My thanks are due to the Registrar, Calcutta University, and to the Superintendent, Calcutta University Press, for their help in the production of this work.

A. C. D

INTRODUCTION

Material Implication

1. "Validly to infer one proposition from another" says Mr. Russell, "requires the relation of material implication between them."¹ Now it is to be determined what exactly is this relation of material implication. I may, however, consider first of all the very thing to which material implication is supposed to be linked. Mr. Russell maintains that we really infer one proposition from another single proposition and that it is not necessarily the case that in an inference we require two or more premisses.

Mr. Russell's position is obviously untenable, and he himself anticipates objections. There are evidently two premisses in a syllogistic inference. There are also many other kinds of inference in which there are at least two premisses. But Mr. Russell points out that "every simultaneous assertion of a number of propositions is a single proposition." It may now be asked: what is a proposition? It is not in Mr. Russell's interest to say that a proposition is an assertion. The statement in question suggests that a proposition is precisely that which is asserted. But it is yet to be shown how in the simultaneous assertion of a number of propositions we can get a proposition distinct from the assertion itself. It is argued that the propositions in question, when welded together, form one single proposition. We, however, should not forget that the welding together of the propositions in question is nothing but the simultaneous assertion of them all. The fact is then that there we cannot secure

¹ *The Principles of Mathematics*, p. 33.

a proposition altogether different and all apart from the assertion. It is now perfectly clear that Mr. Russell in his contention combines two distinct views of the proposition, namely, that a proposition is an assertum, that which is asserted or assertible, and that a proposition is an assertion.

Let us now see what exactly is done when the premisses are ideally combined in the transition from them to the conclusion. In the inference, "A is to the right of B, B is to the right of C; Therefore A is to the right of C," for instance, the premisses together lead to the conclusion, and this shows that the premiss propositions must first be combined in thought. But is this combination, as Mr. Russell suggests, a mere simultaneous assertion of them all? If each of the premisses, being an element in the inference, be an assertion, there cannot be any simultaneous assertion of the two premisses in the same sense of the term; for assertions, however quick in succession, cannot be simultaneous. They must come one after another. On the other hand, if there be a single assertion, there must be as its content a single proposition, however complex that may be.

It may, however, be pointed out that Mr. Russell has shown by means of the rule of what he calls exportation how implication can hold explicitly between single propositions. But what is this rule? To use Mr. Russell's illustration, " pq implies r " is equivalent, if q be a proposition, to " p implies that q implies r ."¹ Here " p implies that q implies r " is itself a proposition, and the aforesaid rule is merely a symbolical device to show how we can put in a shorter form a proposition which is comparatively complex. Anyway, it is for us to see how far this rule can help us towards making the premisses of an inference

¹ *Op. cit.*, pp. 35-36.

into a single proposition. We can, however, safely say that the rule is of no avail as an inference is not essentially a relation of implication. Let us take, for instance, the inference, "Man is mortal, Socrates is a man ; $\therefore$ Socrates is mortal." Putting p for "Man is mortal," q for "Socrates is a man" and r for "Socrates is mortal" can we say that pq implies r ? If we could, the proposition would mean: "Man is mortal" implies that "Socrates is a man" implies "Socrates is mortal." The difficulty here is, however, this, that neither "Man is mortal" implies "Socrates is a man," nor does "Socrates is a man" imply "Socrates is mortal," so that we cannot put "Man is mortal" and "Socrates is a man" together and bring them as one proposition into connection with the proposition "Socrates is mortal" by way of implication. We cannot even say that "Man is mortal" implies that "Socrates is a man" implies that "Socrates is mortal"; for by no stretch of imagination can we conceive that "Socrates is a man" implies "Socrates is mortal" as being implied by "Man is mortal." It is yet to be settled if the conclusion in an inference is implied by the premisses, whatever may be the relation between the premisses themselves. Mr. Russell may, however, point out that the proposition "Man is mortal" is redundant in the inference in question; for "Socrates is a man" materially implies, according to him, "Socrates is mortal."

2. We are thus brought to the question: What is the exact relation between inference and material implication? To repeat, according to Mr. Russell, to infer validly one proposition from another single proposition requires the relation of material implication between them.¹ Obviously then to infer is not merely to apprehend the relation of material implication between the relevant

¹ *The Principles of Mathematics*, p. 33.

propositions; material implication is only one of the conditions of an inferential operation. Let us now look into the structure of inference as such. Granted that an inference is a passage from one proposition to another in virtue of the relation of implication between them, we have to determine what else is there in the act of inference in addition to the apprehension of the relation of material implication. If p and q be two propositions, and if q is really inferred from p , all that can be meant there is this, that the assertion of q , *i.e.*, the holding of q as true, is justified by the assertion of p . In other words, in the inference from p to q , p must first be asserted and then q on the ground of that assertion. And the sense of justification in an inference is expressed by the word "therefore" that is employed therein. As regards the inference from p to q , we first get " p implies q ," and then p . Now, if inference is all a matter about two single propositions, the import of the conclusion proposition is either included in the import of the premiss proposition or not included therein. In the event of the meaning of the conclusion proposition being included in that of the premiss proposition there can be no genuine inference; for an inference as a form of knowledge must contain some new information in the conclusion. Such one-premiss inferences have been discarded by many logicians. The matter will be clearer if we take a concrete example. We assert the proposition, for instance, " X is coloured." Is it then that we make an inference when we from this proposition as asserted arrive at the proposition " X has one of the different colours, such as red, green, brown, yellow, etc., or that the different colours qualify the different parts of X ? Obviously not; for the proposition newly reached follows on an analysis of the meaning of the word "colour" or "coloured." The proposition newly arrived at only makes

the proposition we start with more definite and explicit than it is originally. So in no significant way the word "therefore" can get in between the two propositions, there being no need for any sense of justification. In the so-called conclusion proposition the original proposition is only straightened out. If we, on the other hand, employ "implication" or rather "material implication" to indicate the relation between the two propositions, implication or material implication will turn out to be merely a case of analysis of a given proposition, and all propositions that are related by way of implication—if we restrict the meaning of "implication" or "material implication" in this way—must be analytic and must have by themselves nothing to do with any inference whatsoever. And this will go crashing on Mr. Russell's statement that to infer validly one proposition from another requires the relation of implication between them. "To imply" or "to materially imply" then must mean "to point to what is analysed out of that which is taken to imply," and either material implication takes the place of inference, or inference the place of material implication. If, on the other hand, the import of the conclusion proposition is not included in that of the premiss proposition, there may be an inference. But we have yet to consider what is there to justify any inference there. Mr. Russell maintains that it is in virtue of material implication that we infer. The whole thing then hinges upon material implication. Let us then see what it can possibly mean.

3. It is pointed out that material implication means something quite different from what is commonly held concerning implication. The principle of material implication is stated as follows: "Every false proposition implies every proposition and any true proposition is implied by every proposition." Thus the proposition "Socrates

is a triangle " is, as it is contended, obviously false and implies " Socrates is a man," or " $2+2=4$." The relation of implication that is exemplified in the instance just considered is exactly what is to be called material implication. Now the point we have to consider is whether or not it is possible to pass from the falsity of " Socrates is a triangle " to " Socrates is a man." It is no doubt the fact that the truth of " Socrates is a man " indicates the falsity of " Socrates is a triangle," and we can well put the propositions in their proper relation in the traditional scheme of opposition. But, if the proposition " Socrates is a triangle " is first given and declared false, it is hard to see how the mere statement of the falsity of the proposition can imply " Socrates is a man "; for the truth of " Socrates is a man " is the presupposition of the falsity of " Socrates is a triangle." The word " implication " is often used in different senses. So in a way the falsity of " Socrates is a triangle " implies the truth of " Socrates is a man," and it is in this sense that the truth of " Socrates is a man " is the presupposition of the falsity of " Socrates is a triangle." We may as well say that the truth of " Socrates is a man " implies the falsity of " Socrates is a triangle." But the " implies " which is to be understood as " materially implies " clearly bears two distinct meanings in the two cases. In the first instance, it is equivalent to " indicates as its presupposition." Secondly, the " implies " can be equated with " indicates as its consequent." It may, however, be contended that this difference in the meanings of the " implies " as employed therein does not in any way affect the main thing, namely, material implication. In both cases the " implies " is unquestionably identical with " entails." But we have yet to see how every false proposition can imply every proposition and how every true proposition is implied by every proposition. " $2+2=4$ "

is a proposition which can well be taken, as it is contended, as being implied by "Socrates is a triangle." Whatever a proposition may be, it must be significant. But what is the significance of the proposition "Socrates is a triangle"? If the term "Socrates" is the name of a definite person, the proposition, far from being significant, is nonsensical and is on a level with such so-called propositions as "Virtue is square," "Justice is multi-coloured." If, on the other hand, the terms "Socrates" and "triangle" be not significant, "Socrates is a triangle" is equivalent to "S is P," which is a mere symbolical representation of the form of the proposition. In either case "Socrates is a triangle" is no genuine proposition. So any deduction of " $2+2=4$ " or any other proposition from "Socrates is a triangle" is out of the question.

Granted, however, that "Socrates is a triangle" is a proposition, it is not quite clear to us how we can pass from this proposition to " $2+2=4$ " by way of implication. There is, however, a way in which what is called material implication may be made significant. If it is true that the universe as a whole is a system, every fact or event would imply every other fact or event, and this means that everything can exist in so far as every other thing exists. But this leads us towards Bosanquet's theory of implication. If out of some primitive proposition or propositions we can unfold a system of propositions by way of deduction, the system in question is the whole in which the original data fall, and apart from which the original propositions are abstractions. The original propositions are atomic in the sense that they are regarded as significant and true independently of anything else. But the fact that they are, in the ultimate analysis, elements within a whole determines the process of deduction of a number of propositions from them all. However, whatever this process of deduction may be, it is not at

any rate, a process of inference; for the passage from the datum to what is deduced is direct and is not mediated by anything: the deduced proposition is unfolded out of the significance of the datum proposition.

We may make an approach to the problem from yet another side. "Material implication," says Mr. Russell, "may be regarded as an instance of some formal implication."¹ Now we have to consider what exactly it is that is meant when material implication is taken to be an instance of formal implication. Formal implication is expressed thus: "X is a man" implies "X is mortal," which is equivalent to "If any individual is a man, he is mortal," and this is all that is expressed in the universal proposition "All men are mortal." "Socrates is a man," as it is contended, materially implies "Socrates is mortal," and the relation between the two propositions is taken to be an instance of the formal implication "'X is a man' implies 'X is mortal.'" We quite understand what is meant when it is maintained that a particular is an instance of the relevant universal. A particular rose, for instance as an instance of the universal rose, is an embodiment of roseness. Can we likewise take material implication, as in the instance cited above, as an embodiment of formal implication? If we can, material implication as an embodiment of formal implication would then mean that but for the formal implication functioning at the moment there can be no passage from a proposition to another proposition between which the relation of material implication is supposed to hold. Thus "Socrates is a man" (materially) implies "Socrates is mortal" because of "If anything is a man, that is mortal." And to put it the other way round: If simply "Socrates is a man" is given, we cannot see how that alone can lead on to

¹ *The Principles of Mathematics*, p. 34.

"Socrates is mortal." We can pass from the former to the latter only if the import of "mortal" is really part of that of "man." In that case, the whole burden of material implication is left on the relation between the two elements—"man" and "mortal." And the relation referred to would be no more than that of analysis, in the sense that "mortal" is analysed out of the whole—"man." Then all that we come to is this, that we get "Socrates is mortal" by way of an analysis of "Socrates—a man." Then implication, or rather material implication must mean "analysis," and anything like formal implication is otiose. Let us then ascertain what can possibly be meant when material implication is taken to be an instance of formal implication. As has been indicated above, without some such piece of knowledge as "If anything is a man, that is mortal" or "All men are mortal" wherein the "all" indicates the universality and hence the necessity of the relation asserted, the proposition "Socrates is a man" cannot be linked to the proposition "Socrates is mortal" by way of implication. "All men are mortal" obviously falls outside both "Socrates is a man" and "Socrates is mortal." And, if we take "All men are mortal," or "If anything is a man, that is mortal" as a statement of formal implication, it is difficult to see how the two propositions "Socrates is a man" and "Socrates is mortal" together with whatever relation is there between them can be regarded as an instance of formal implication. It may, however, be argued that the formal implication we require there is best expressed by "If X is a man, X is mortal," or "'X is a man' implies 'X is mortal.'" Here the X is a variable, and we can get a proposition by giving a value to it. Thus by assigning the value "Socrates" to the X, we get "'Socrates is a man' implies 'Socrates is mortal,'" which supposedly represents material implication. Can we now say that the material implication

is just an instance of the formal implication? Aristotle pointed out centuries ago that the relation between instance and universal is such that, though universal is prior in being to instance, yet we as a matter of fact rise in our experience from instance to universal. In other words, we get at a universal by fixing on the relevant instance or instances. But is it that by merely concentrating on "Socrates is a man" and "Socrates is mortal" we come to know all at once the relation between them to be one of implication? To this I utter an emphatic "no." Hence the word "instance" as used here with reference to material implication is nonsense.

To get to details; if it is the case that in entertaining (not asserting) the proposition "Socrates is a man" we feel obliged to entertain the proposition "Socrates is mortal" and, if we call this relation of necessity between them material implication, we have to point out what it is that distinguishes this from formal implication. It may seem that, whereas the "X" is indeterminate, the word "Socrates" being the name of an individual is determinate, and that by giving the value "Socrates" to the "X" that is employed in the statement of formal implication we turn formal implication into material implication. But the point is that "Socrates" implies "mortal" no more than "X" implies "mortal"; for the relation of implication is not so much between "Socrates" and "mortal" as between "man" and "mortal". In the statement of formal implication all that is indicated is that, if anything is a man, that is mortal, meaning thereby that being a man entails being mortal, and the X involving as it does an indefinite reference to the possible embodiments of manness indicates the universality of the relation, that is the core of necessity. The X performs verily the function performed by the "all" in the proposition "All men are mortal." Here then

there is not so much the question of material implication being an instance of formal implication as the question of material implication itself. In the instance considered above, if implication turn on the elements "man" and "mortal," the situation of "Socrates is a man" implying "Socrates is mortal" is exactly the situation of "man" implying "mortal." But then the so-called material implication evaporates away.

CHAPTER I

NEGATION AND NEGATIVE JUDGMENT

1. According to quality, propositions are either affirmative or negative. "A proposition," as Mill puts it, "is a portion of discourse in which a predicate is affirmed or denied of a subject."¹ But, in the division of propositions or in the definition of the proposition, just referred to, there is nothing to indicate how both an affirmation and a negation can be regarded as a proposition. On the contrary, the proposition is sought to be defined in and through the division itself. There is obviously a vicious circle. An affirmation as well as a negation is called a proposition, and, when we press for the definition of the proposition, we are told that a proposition is that in which we affirm or deny.

An attempt may nevertheless be made to bring out the genus under which they can be subsumed; it may be contended that a proposition is an assertion in which we say something of something else.² There is doubtless some truth in the contention; but it will be found, on analysis, to involve difficulties. The whole thing then depends on the intelligibility of "to say something negatively," that is, of a negative assertion. Whatever the exact meaning of a negative assertion, there is an ambiguity about the words "to say" and "to assert." We should, to begin with, determine the significance of "to say" and "to assert." There can be no two opinions about the fact that often enough these are taken to mean just

¹ *A System of Logic*, pp. 57 and 18 (1892).

² Aristotle, *De Interpretatione*, 17^a, 25. Ed. by Ross.

"to put into words," and it is clear that this sense of the words has no direct bearing on the point at issue. The main thing that matters here is whether there is a function of thought, which can be characterized as negative.

2. An approach to the problem may be made from an accepted analysis of the structure of the proposition. Ordinarily, in a proposition three distinct parts are recognised, namely, subject, predicate, and copula which last is taken as the sign of predication. In the propositions, for instance, "S is P," and "S is not P," the copula "is," to be self-identical, must function in the selfsame way. In "S is P" the copula indicates that P is asserted of S, and this is all very easy to follow. But, in the proposition, "S is not P," if the copula can afford to be indifferent to the negative particle "not," it would not only maintain its identity in its function there, but would also annul the division of propositions into affirmative and negative. As the matter stands, the negative element "not" makes all the difference between "S is not P" and "S is P." So, the question we are to consider is: How, in the face of a wide difference between them, can we bring them under one head? If assertion is involved at all in the negation "S is not P," what is it that is actually asserted? Why, it may be replied, what is asserted is that "S is not P." It seems that this should satisfy us all. But a little reflection will bring up the problem afresh, and we shall find that a mere verbal manipulation cannot resolve it. The difficulty would indeed be minimized if we could, like Johnson, take the copula to indicate both the relation of the elements that constitute the content of an assertion and the actual assertion.

Then a statement, such as "what is asserted is that S is P," becomes significant inasmuch as there we make a distinction between the content of the assertion and the assertion itself, a distinction which is hidden under the

form of the proposition. But, in that case, the "is" as indicative of the relation within the content is equivalent to "being"; so, for clarity's sake, one should say "what is asserted is S being P," instead of "what is asserted is that S is P." Otherwise, "what is asserted is that S is P" is apt to be turned into "S is P," which is at once indicative of the form of the content and its assertion, in which case the asserted and the assertion are likely to be confused. Now then recognition of the value of "being" brings into relief the copula "is" in its function as the sign of predication. We can, therefore, take "is" straight-way as an expression in language of the act of assertion. Then the difficulty that confronts us is: How to interpret the function of the copula in a negation or in what is called a negative proposition? If the "is" is there a sign of predication, and, if a negation is a proposition, the "is," to be identical with itself, must indicate a piece of predication or assertion. "Is" is obviously the opposite of "is not." If we then draw the copula apart from the negative particle "not," we indeed save that way the sign of predication, but, in fact, miss or marr the very act of predication. We cannot there possibly connect up P with S; for, in the negation, "S is not P," any connection of P with S will leave no scope for "not," and will be found, in the ultimate analysis, to make against the very division, affirmation and negation. It may, however, be pointed out that, in a negative proposition, negation attaches to the copula. But this is as much as to say that in a negative proposition predication is negative. But I may again ask: What is the common element that makes positive as well as negative predication possible? If it is contended that predication consists in affirming or denying, obviously affirmation and negation are made more fundamental, and predication appears to be a mere name for both of them without anything in them

corresponding to the name. It may, however, be argued that that a negation is quite a case of predication is revealed in such a statement as "I assert that S is not P," which may be made in answer to the query: "What is it that is asserted in a negation?" Considering the statement from the mere grammatical point of view, no one can deny that there is point in the argument. But, if we look beyond the linguistic form employed, a difficulty will forthwith confront us. In fact, the sentence, "I assert that S is not P," can be equated in significance to the original negation, "S is not P"; for all that is meant in the amplification of the original sentence is exactly what is conveyed by the latter. Thus, so-called assertion or predication in a negation turns out to be nothing more than a negation or a denial, and with this we are left with the original difficulty as to the division of propositions into affirmative and negative.

3. We may consider the matter from yet another side. In "S is not P," P is admittedly denied of S. One can then first deny and then assert that one has denied, and this is exactly what is done in such a sentence as "What is asserted is that S is not P." But, if we here use at all the word "assertion," we have to take it in an entirely different sense. If I first deny and then assert that I have denied, I undoubtedly go psychologically a step beyond the denial inasmuch as I become retrospectively aware of the denial I have made. The retrospective awareness of a denial is indeed positive, but is not affirmative in the sense in which the proposition "S is P" is affirmative. Even if we admit anything affirmative corresponding to the affirmation "What is asserted is that S is not P," the so-called affirmation will fall outside the denial "S is not P" *qua* denial, and, can, by no means, be made to contribute anything to the content or to the constitution of the proposition "S is not P." In short,

that way we proceed to indicate whatever affirmation is there in a piece of negation, but do not, as a matter of fact, say anything more than that in a denial we deny; and this statement brings up afresh the problem indicated above. If the "is" in the negative form of proposition be the sign of predication, there is beyond doubt predication; but, in that case, the negative particle "not" has to be taken apart from the copula and treated separately. Affirmation and negation have to be mysteriously combined therein, so that we may say that in the selfsame proposition we affirm and deny the same content at the same time, which is a manifest contradiction. If indeed the copula is taken to be the sign of predication, we, in fact, fail to make anything intelligible of a negative copula.¹ So I have to say that a negation or a denial is not a genuine proposition.

An attempt may, however, be made to do away with any predication in so far as a proposition is concerned. But that way we shall complicate a matter which is in itself difficult. If we take the copula as indicative of the relation between the elements that together form the content of an assertion, there the "is" is equivalent to "being" and the proposition "S is P" is to be read as "S being P." Not only this; but "S being P" should as well be taken as the fundamental form of the proposition. From this analysis it also follows that a negation as in itself is not a proposition; for in the distinction between "being" and "not being" the original difficulty remains. So, in what is called a negative proposition we can distinguish between two functions of the verb "to be" which is employed therein. From the suggestion "S being P," in which the "being" is indicative of the possible factual relation between S and P, the passage

¹ For the distinction between negative copula and negated copula *vide* Sigwart, *Logic*, Vol. I, p. 122.

to the corresponding affirmation, if there is an affirmation, is direct and the "being" gets merged into the "is" employed in the affirmation. In the case of a negation, however, the "is" does not indicate an actual assertion, but combines in itself two distinct functions one of which is rather peculiar. First, the "is" there suggests an affirmative relation between the subject and the predicate, and that by virtue of the "is" being identical with "being." Secondly, the "is" does not function all by itself, but in collaboration with "not." Thus, the "is not" expresses the negation of the suggested affirmative relation between S and P; the "is" in the negation "S is not P" is the sign of the attempt to affirm the suggestion of a positive relation between them, and the "not" indicates that the attempt is thwarted. Evidently then in the negation "S is not P" there is no copula, since the "is" there does not stand for any copulative function. If, on the other hand, the "is" is the copula in the sense of the characterizing tie between the two elements—S and P, it is not merely that in "S is not P" there can be no negative copula, but also that there would be no copula to be negated; for in "S is not P" negation directed to "S is P" would fall outside "S is P." And this shows that a negation is far more complex than an affirmation and that they cannot be brought under the same yoke, as the former presupposes at least the suggestion of an affirmative relation. There is, therefore, need for a revision of the traditional scheme of the classification of propositions.

4. Some may, however, try to save the copula by transferring the negative particle "not" to the predicate. Thus, "S is not P" is readily reduced to "S is not-P." Now, if we fix on the form of the proposition, "S is not-P," we shall find that there is no reason why we should not take it on a par with the affirmation "S is P." But, if the linguistic form is allowed to predominate over the

import of the propositions in question, we shall find negation eliminated altogether, and the division of propositions into affirmative and negative would be all absurd. The truth, however, is that the form of a proposition is determined by its import, and not conversely. Here the whole thing hinges upon the meaning of "not-P." Terms like "not-P" have been treated differently by different logicians. All are, nevertheless, agreed on one point regarding them, namely, that they do not mean anything definite. They have, in fact, been characterized as indefinite inasmuch as each of them covers all the facts of the universe except those that are meant by its opposite. So with any of them as subject or predicate there can be no significant assertion. But it is suggested that "not-brown," for instance, is to be taken to mean the genus "coloured" exclusive only of "brown"¹; and, in this way, we are told, we can get at the positive meaning of the term "not-brown." But a careful examination will show that there is a confusion between implication and meaning proper. There is no denying that "not-brown" conveys to us indirectly the fact that there are coloured things. But this is nothing peculiar about the term "not-brown"; for all this is true of the term "brown" as well in its application. On the contrary, the fact is that it is the possibility of a colour in a thing, that determines, in the ultimate analysis, affirmation or denial of that colour of that thing. So the possibility in a thing of a colour cannot be construed into the positive meaning of the negative term, "not-brown"; for in that case there would be nothing to distinguish between "brown" and "not-brown." It may, nevertheless, be maintained that it is "colour" alone which is meant by the term "not-brown." But this is only another way of putting forward the confused

¹ Joseph, *An Introduction to Logic*, p. 44.

view I have just considered, and is not anything more than the assertion that "brown" is a colour and that to negate it of a thing presupposes its possibility there as one of the conditions that make for a negation of the colour. We may fix on a thing and bring to light the conditions that determine it in its being, but the content of the thing in question is not merely a summation of the conditions themselves. So, if we are to make out anything like positive meaning of a negative term, we have to point out that the latter directly refers to the relevant fact. In a positive term our thought passes straight to the corresponding fact, whereas in a negative one we fall back upon the term itself to see that there is nothing corresponding to it. In such a situation how can there be positive meaning of a negative term?

5. It may still be argued that the negative term, "not-brown," for instance, means all the determinate colours except "brown." This contention will be found on analysis to lay down a condition for framing a negative term, namely that, if we are to negate anything, or rather anything of any other thing, we have to know previously all the determinates under the determinable, or all the species under the genus, to which that which is negated belongs. But this is not borne out by experience. It may, however, be contended that, though we may form a negative term with a single positive one by prefixing to it the negative particle "not," yet, as in itself, as an element of language the term so formed is not significant; the signification of the negative will necessitate the knowledge of the determinates of the genus to which the negated belongs. Let me then consider what exactly is meant by the above assertion. "Not-brown," for instance, is taken to mean all the colours except "brown." According to the theory, then, "X is not-brown" can convey to us no more than that X is red or green or blue or black, etc., but not brown."

There are, however, two distinct difficulties which it is not easy to overcome. In the first instance, X cannot take on the colours other than "brown" all at once, while in the proposition we have to point to the determinate colour which is to furnish the positive meaning of the negative "not-brown." The fact is that "not-brown" in virtue of the peculiar relation between the determinate colours implies all the other colours in disjunction, indicating thereby that only one colour can be true of a thing at a time, and that "not-brown" can imply all this only if it has a meaning or significance of its own. If we, on the other hand, fix on the actual colour of X, because of which we get "not-brown," we cannot possibly equate "not-brown" to the determinate colour in X, say, red; for, in that case "not-brown" being equatable to every other colour except "brown," will lead to such equations as "red=green, red=black," and so forth. But this is manifestly absurd.

6. The difficulty is, however, sought to be covered up by the transformation of the negative form of the proposition, "S is not P," into the so-called positive, "S is non-P," or by the derivation of the latter from the former.¹ There a distinction between not-P and non-P is made, and non-P unlike not-P is taken to be positive in its import, so that "S is non-P" is treated as affirmative. It is pointed out that in "S is non-P" we seek to assert what S is in its determinate nature. But what precisely S is is left indeterminate. What we come to is then this that S is determined only in so far as it is not P, and this shows that we have not gone even a step beyond the original negation "S is not P."

An attempt may, however, be made to save the status of negation by the statement that in a negation we assert

¹Vide Johnson, *Logic*, Part I, p. 72.

the absence of a thing just as we assert the presence of a thing in an affirmation. It is undoubtedly true that, if we can get absence as a fact which can become content of an assertion or predication, we shall be able to make a good case for a negation or a negative proposition. Let us then see whether it is possible to get absence as a factual existence, or, in other words, whether there is anything like negative fact. This will take me far beyond the question I am discussing, namely, the division of propositions into affirmative and negative.

CHAPTER II

NEGATIVE FACT AND NEGATION

1. An approach to the problem of negation may be made from the side of meaning or significance of terms or words. If we find that the meaning of a word does not originate in the mere combination of the letters that make up the word, but in an idea which is just reference to the relevant fact or facts, and, if we fail to find an idea behind a negative term or proposition, we may at once discard the position that a negative term stands for, or a negative proposition points to, a negative fact.¹ Let me then take a so-called negative judgment and see if it has for its content anything like a negative fact. In the judgment "This table is not yellow," for instance, it seems that we fix on the idea "not-yellow." It goes without saying that on this consideration alone some would have us believe in the possibility of an easy passage from the negative form of a proposition or judgment to the affirmative by way of reduction, indicating thereby that a negation is all a matter of language. Waiving other major considerations, I may profitably pay attention to the fact that the negation of an idea, if such a negation is intelligible at all, is not an idea. It ought to be more obvious than anything else that no grammatical device can eliminate from the negative particle "not" the logical function it is chosen to perform.

¹ *Vide* Russell, *The Analysis of Mind*, p. 276, and also Aristotle, *Metaphysics*, Book IX, 1051^b (Ross's Edition). Aristotle seems to suggest that there is such a thing as negative fact. But, as has been pointed out (*vide* the footnote to 1051^b), it is difficult to reconcile this view with his usual doctrine expressed in Book VI (Ch. IV).

Granted, however, that a negative idea is just possible, an analysis of its content will presently land us in absurdities, inasmuch as the so-called content "not-yellow" will cover not only all the other colours except "yellow," but the whole field of facts exclusive of "yellow" only. But we cannot afford to miss the point that this import of the word cannot have even a very remote bearing on what is expressed in the proposition "This table is not yellow."¹ It may be argued that the question of the possibility of a negative idea must be settled on the basis of a negative fact; that is to say, the possibility of a negative idea hinges upon the possibility of negative facts. An idea is, broadly speaking, a mental representation of a fact or facts, and if negative facts are as much facts as the positive, there would be no bar to our accepting anything like negative idea. But it is difficult for us to have clear-cut contents which, when determined in thought, would generate negative significance. Then, the problem that confronts us is: What is the differentia that distinguishes positive and negative facts *qua* fact? If it is contended that it is just a negative element in the negative fact, that makes all the difference between the two kinds of facts, there would be begging the issue itself. An approach may, however, be made from another point of view; we may stress the factual side of the two kinds of facts and consider what is to be strictly called a fact. A fact is a fact in virtue of it being given in a context and as such carries with it a positive import from the first. But there remains still a problem as to whether what is called a negative fact can be likewise given. And, before we can bring negatives and positives to the same rank of being, we have to satisfy ourselves that negatives are given exactly in the same way as positives. Were

¹ *Vide Bosanquet, Logic, Vol. I, pp. 282-83.*

it actually the case, there would naturally be no trouble ; for the difference between the two would be of a kind analogous to that between two monkeys one of which possesses a tail and the other lacks it, so that we might well take the negative particle, ' not,' as a linguistic mark for factual mutilation. Unfortunately, however, the difference between positives and negatives is not quite of this kind ; for the case of a negative is not quite the case of a positive term only less an element. The question of a positive and a negative term is not a question of more and less, but strictly one of yes or no. So in the analogy both the monkeys are given as concrete contents ; we come in contact with and entertain them in thought affirmatively. It is only when we look for their tails that we become conscious of one in one of them, and of the absence of one in the other, and we forthwith stand face to face with the baffling problem we are to grapple with. The situation can be, in short, set forth thus : in one case a tail is given, its presence being identical with its being given, and our knowledge of it, whatever its form, is immediate. Now the point that demands our attention is whether or not the absence of a tail in the other case is given quite in the same way as the presence of a tail. At first sight the case of taillessness appears to present no difficulty. But, if presence means givenness, and if givenness is co-extensive with concreteness, what is given, I may ask, in the situation of " no tail " ? To all appearance, in the situation of " no tail " we cannot possibly fix on the presence of a tail ; for there its presence is verily the thing that is at stake. If we, however, accept the usual sense of " givenness," in the case of " no tail," what we are to look for as given is not a tail, but the thing the particle " no " stands for. And, if the " no " of a tail is given as much as the " yea " of it, absence will turn out to be presence in virtue of it being given, much to the

relief of us all who are really faced with a problem. But there is no flying from facts, and experience tells a different tale. However much we may try to minimize the difference between affirmation and negation, presence and absence, the distinction between them stands out there drawing our attention. It will not do to say that absence as a fact is posited through a confusion between non-apprehension and non-existence.¹ To say that we apprehend nothing in a context of absence is not to ease the situation in any way; the problem is rather thereby definitely set forth for solution, and we have to go a long way before we can reach it.

2. It is contended, as we have seen, that absence is a definite content which cannot be explained away as being purely subjective, but is to be posited as a fact. All discussion apart, attribution of givenness to absence, in the ordinary sense of the term, takes away from it all negativity; and this shows that negations can hardly point to facts that are essentially negative.

One may here bring the distinction between perception and imagination to bear upon the antithesis between positive and negative facts. It may be contended that a positive fact unlike a negative one is perceived or perceivable, while a negative fact is only imagined. Going into full details, we find that, in the situation of a negation, we do actually imagine the object or the objects negated. But nobody can question that imagination *qua* imagination, in spite of its dependence upon some particular perception or perceptions, is purely ideal. Imagination and its rôle in the situation of a negation can be made more articulate than in any situation of affirmation, but this is quite another matter. This much, however, is clear that there imagination, far from accounting for absence as a fact, presupposes

¹ Cook Wilson, *Statement and Inference*, Vol. I, p. 255.

it at least as its occasion. And this way we come again on opposition between presence and absence, in the sense that, whereas the former cuts short all imagination in regard to the presence of the content that is present, the latter stirs that up into operation. So it can again be asserted that, absence, were it a fact, could be given exactly as presence is given.

3. There is, however, another point which seems to override the importance of what has just been considered, and it is this, that, though absence can by no means be made to be given like presence, yet our knowledge of it is found to be immediate, and that this characteristic—immediacy goes a long way to establish absence as a fact; were it not one, we could not possibly be conscious of it as such. Immediacy can well be taken as the façade of the given. We can nevertheless abstract it from its proper place and make of it, though symbolically, many applications. This is, however, not relevant here. The main thesis that is sought to be established in the contention is that our awareness of the absence of a thing is as immediate as our awareness of its presence.

In perception our senses function and we stand face to face with facts. There is no gainsaying the fact that, barring the cases of pure perception or rather the first grade of apprehension, ideal elements are found to be involved in all adult perceptions. And in them the relation between "occasion" and "occasioned" is always from fact to idea or ideation. In the situations of negations, however, the relation is the other way about, that is, absence as a content, if it is a content at all, is made so by the collaboration of the given and an idea or ideal process. So we see that, whereas in our ordinary perceptions we fix on things, qualities or relations directly, our awareness of absence presupposes not only the possibility of the absent in the context in question, but also a conscious

expectation of the absent under consideration. Thus our perception of a room as empty presupposes our previous perception of it as filled with furniture, or with some other things. Here, of course, absence may appear to be a derivative of presence. But we have to accept the notion with a modification. In fact presence is one of the remote conditions that operate through others, which are in reality their offshoots, in order to usher in absence. But absence as a content can be had out of presence no more than a tiger cub can be had out of the womb of a ewe. However, presence has another rôle to play in our awareness of absence, but this presence is none other but the presence of the locus in which absence is posited. Now the point that is to be considered is whether absence is as immediately known as the locus. At first it may appear to be so, but on reflection it will be found to be otherwise. I have just referred to two fundamental conditions of our awareness of absence in a context, namely, the possibility and an expectation of the absent in question in the context, which, for convenience' sake, may be brought under the name 'ideation.' As has already been indicated, the case of absence is not so simple that in it we may be said to begin with a fact presented beside the locus. On the contrary, the truth is that in the situation of a negation or absence an ideal experiment is made on a given point, and our consciousness of absence emerges as the end of the process in which we cannot separate between the act and the attainment. And it is this which practically gives the lie to the statement that absence is a fact.

It may, however, be retorted that the conditions of our knowledge of absence, whatever their importance, cannot possibly constitute the content we become conscious of. The argument put forward may be implemented by the contention that like any positive fact absence may require conditions ideal or otherwise to bring it before

our minds. What is urged may indeed sound plausible, but is not corroborated by experience. No one can doubt the fact that we do not know at a time all the aspects of a thing, or several things, as given in perception. Taking, for instance, our perception of a table, we find that the table as a whole is given at once, but its different aspects are later known through distinct perceptions. And it is our analytic attention that accounts for all these acts of consciousness. We cannot, however, likewise know the absence of a thing only through our analytic attention ; for absence of anything is not something simple we can fix on directly. In the situation of a negation it is the locus which is immediately before our minds. What are then the conditions that are required for absence to be presented as an objective fact ? Take, for instance, any place, say, a room where we may perceive this thing or that. Supposing that the room contains several things, by directing our attention and turning our eyes we may come to know some or all of the things contained therein. But the few things that are found there cannot be all the facts of the world. Many facts, ~~say~~, the whole host of facts except those that are present there are evidently absent from the room. We do not, however, become conscious of these absences one after another or all of them together just as we become aware of the presence of the things that we perceive there. And this decisively goes against the immediacy of our so-called knowledge of absence, and, for that matter, makes against its status as a fact.

4. I have so far taken absence in relation to a locus and have indicated that the idea of the thing that is absent, though not the sole condition, is one of the two without which our knowledge of absence is out of the question. I may, however, be told that " There are cases in which there is no distinct image of the absent object at all and where yet we may be aware of the perceived locus of the

absence as empty or devoid of an indefinite something.”¹ It is further contended that our awareness of absence or bare absence in a locus and our awareness of the absence of a definite something, or rather, of a thing as absent are distinct, although one may involve, or lead on to, the other. Now, if any such clear-cut distinction is possible, and, if the contention is found to be corroborated by experience, one cannot have reason enough to hesitate about accepting the position that absence is an object.

Let me begin with emptiness. I shall do well to take the very example made use of in the text referred to. Readers are asked to imagine ‘a field that was observed in the past with a tree standing on it, which might not have been particularly noticed at the time,’ and is now perceived with an empty look about it by the observer, the tree having been removed in the meantime. And it may not be that he definitely thinks of the tree the removal of which makes the difference between the two perceptions. Here, first of all, I may try to indicate the difficulties involved in the situation by asking a question. When two persons come to the place under consideration—the observer himself, and a new comer with no predispositions whatever in regard to the field in question—after the tree has been removed, should there be a difference in the cognitions on the part of the two men with reference to the field? I may answer for the exponent to the effect that, whereas the former may perceive emptiness as attaching to the field, whatever features the latter may come on, any sense of emptiness would be far from his perspective. Were emptiness in reality an object, or even, as has been suggested, a quality, what prevents him, I wonder, from perceiving it? The only thing that is, on analysis, found to account for the difference between the perceptions on the part of the two

¹ K. C. Bhattacharyya, *The Subject as Freedom*, pp. 109-10.

persons there is the relevant past experience of the observer, the implication being that emptiness and the awareness of it is consequent upon a piece of ideation with reference to the context or the locus in question ; in other words, the so-called emptiness is not anything that is given along with the field to the new comer just at the very start of his experience there. On the other hand, the emptiness appears to be an effect of an ideation performed upon what is regarded as its locus.

Moreover, I may ask : Why should there be emptiness at all on the field ? There might be many other things to cover it, and the removal only of the tree in question cannot obviously impose upon it an empty look. There the absence of the tree is all that we look for, and it is clear that the field as a whole may not enter there as the locus with emptiness qualifying it ; only part of it or a position in it may suffice as the needed background. The case of emptiness here might be rendered much easier, if, instead of a tree, there would have previously been a forest on the field. Leaving this point aside and fixing on the field with the absence, we have to determine whether the idea of the tree in question operates there. There is, of course, an element of truth in the contention that in the case under consideration there is no distinct image of the absent object. But, as has been pointed out, without some experience of the field with what is now absent, and, for the matter of that, without some idea or image of that which is now absent, an awareness of the absent is by no means possible. And these two statements can well be taken as thesis and antithesis. But the opposition between them is only apparent and will fade away on analysis. We may, in fact, find that, in some case or cases, distinctness of an image or an idea is attained by some stages in so far as its overt functioning is concerned. So in the analysis of one's awareness of the field in question with a bare absence attaching to it, we find that, though

the image of the tree in its particularity may not be present before one's mind at the moment, the idea " tree " nevertheless must function ; or else we shall find it very difficult to explain the difference between the perception on the part of the observer and that on the part of the new comer. It is quite likely that the observer on a past occasion or occasions did not quite notice the particularity of the tree in question as a particular, and that he might have perceived it only as a tree. Now that he perceives the field with emptiness on it, memory must play its part there ; for, as has been indicated above, without an element of past experience, functioning at the time, no absence can come before consciousness. In default of a distinct image of the tree in question, which may not be forthcoming at all, it is not that we get the absence of the tree as knowable and as known all apart from any ideation. The idea " tree " acts in place of an image of the tree and acts adequately inasmuch as the tree in question is a tree, no matter what features it has as a particular tree. There is evidently no need for a transition from the awareness of bare absence to that of the absent. If we look beyond the elements of language used in the two cases we shall come at the fact that " absence " involves a reference to what is absent as much as " the absent " imports absence. It may, however, be argued that there is after all a distinction between " a tree " and " this or that tree. " But this relates not so much to our awareness of absence as such as to the elaboration or rather articulation of the positive content the absence of which is the issue, and does not in any way affect the position I am trying to establish.

It may be further contended that I am still beating about the bush and have not yet put my finger on the core of the problem. An approach to the problem is sought to be made from another point of view. It is maintained that we become aware of the absence of a

thing without the least consciousness of the locus to which that may be subsequently found to attach. Let me take the illustration given in the text under discussion. "A person is looking for a book in a room but does not find it. He knows the book to be absent without being conscious of any empty look about the room and without in fact consciously referring the absence to the room at all."¹ As has already been pointed out, the emptiness, or rather the empty look about the field referred to above is taken to be equivalent to absence in the abstract, which, in the long run, develops into the absence of the tree. But is there any modification effected in what is originally given, namely, absence as mere emptiness? I have just pointed to the difficulties involved in the conception of absence as bare emptiness. Taking, however, for argument's sake, that we may in fact begin, in a context, with absence as emptiness, it would be very hard to show that later the original absence gets somehow coloured by its association in thought with the absent. In any attempt to show that the original absence is so coloured, we shall have to be rigidly confined to the particularity of the absent and always in conception in so far as the situation of absence is concerned, and leave the original content, 'emptiness,' in tact. This raises a presumption as to the simple character of absence as a fact, and there will then be absence in general to be directly known without any regard whatsoever to what is absent in a particular case. On the contrary, some of those who do not subscribe to the proposition that absence is as much an object as any other, make much of the locus, so much so that it is given a prominent rôle to play. Knowledge of absence seems, on their showing, to be nothing but the "fringe of the knowledge of the locus." Not only this, but absence as a content of consciousness, however illusory, emerges, as they point

¹ *The Subject as Freedom*, p. 111.

out, out of a clash between a relevant ideation and a factual content given. An attempt to vindicate the objectiveness of absence without any reference to the locus will, therefore, appeal to those who are all eager to see it established as a fact. In short, the position I am discussing may carry conviction with many, but will be embarrassing to many others ; to some it will be an enigma, and they will be hard put to it to penetrate it.

For instance, a book is missing, and a person, looking for it in a room, fails to find it. As it is contended, the person in question is aware of the absence of the book, though he is not so much conscious of the absence of the book in the room. It is nevertheless not denied that his initial awareness may be later articulated as "The book is not the room." The knowledge of the absence of the book here need not necessarily involve any awareness of the absence qualifying the room, and there can be no two opinions about it. None the less, the point that calls for consideration is whether in the situation of the absence in question there is any reference whatsoever to a locus. I may begin by analysing the piece of knowledge that the book is not in the room. Here I shall do well to consider the relation of "book" and "room" in the corresponding affirmation—"The book is in the room." All subtleties apart, we may conceive the relation between the two as being one of the contained and the container, or rather one of contact between them. But we should not miss the fact that the book to be in the room must be at some particular point therein, at least for a time ; for we may well imagine a situation in which the book is constantly moved within the room, indicating thereby that the whole of the room is not covered by the book. On the contrary, the fact is that the book is in the room in virtue of it being at a particular position therein. Whether the book is to be stated to be on the table or

the shelf, or in the almirah, all these falling as they do within the room, will depend in a large measure upon our interest and some previous suggestion. The statement—"The book is in the room" will on analysis break up into a disjunction which can be represented thus: the book is either at x or at x^1 or at x^2 or at x^3 , and, so on, X being position in general in the room, and x, x^1, x^2 , etc. being determinates of X . The statement—"The book is in the room" is only a simplified expression of an assertion which is based on an aspect of the relation parts bear to whole, namely, that whatever is found to be in contact with a part is on that score to be regarded as being in contact with the whole in which the part in question falls. But, in so far as common experience goes, we might stop with the part given as a particular, and we may not at the moment refer in any way to the broad background. Now it should not be very hard to see how what is found to be true of the affirmation "The book is in the room" will hold good in the case of the corresponding negation also. There is then no reason why we should hesitate to accept the position that a person looking for a book in a room may be aware simply of the absence of the book without ever being conscious of it as attaching to the room as its locus. But, in accepting this, we are in no way bound down to the corollary, that is sought to be deduced, that there is in fact no awareness of a locus here. An insight into the actualities of a situation of negation will doubtless corroborate my contention. A person looking for a book proceeds on his side with an expectation of it, which in its turn involves a vague disjunction regarding the position of the book. All this is sufficiently indicated by the usual manner of our scanning the nook and corner of the place in question in search of a thing. So, if a person look for a book somewhere and find it missing, he comes to know of it as missing by a series of negations in each

of which a particular point or position is the locus. There may, none the less, be a sharp distinction between "The book is not here or there," and "The book is missing." On the face of it, it may seem that there is nothing absurd about the suggested distinction. But on analysis we find that the person concerned does not in fact stop at this or that position, because the suggestion with which he proceeds gives a wider scope to the determination of the position of the book. He might have stopped with the table, if the book were suggested to be on the table. It may, however, be argued that there is no need for such paraphernalia ; for absence is far too simple a fact to admit of such a subtle analysis. But then I have to repeat the argument that, if absence by itself were a simple fact, and could be an object of immediate apprehension, what is it that makes a difference between the perceptions on the part of the two persons—one looking for the book and the other without the least suggestion of the thing.

Some may take advantage of the analysis given above and contend that, though a locus is provided by any of such positions as here, there, etc., and, though it is true that there we begin by absence together with a locus, yet we may end by apprehending absence as such, floating in the air, so to speak, so that in the end there may not be any reference whatsoever to a locus. No wonder then that the distinction between "The book is not here or there" and "The book is missing" is utilized to this end. Strictly speaking, however, there is hardly any difference between the two, and in reality the latter is merely an elliptical way of expressing what is really meant by the former. "The book is missing" indicates, in so far as the book is not here or there, that the relevant locus is dropped out. It is, however, quite possible to put a different interpretation on the statement—"The book is missing." It may be pointed out that after having made a series

of negations with reference to the positions at which the book is likely to be found, one gets in the end disengaged from the act of referring to any locus and becomes aware only of the absence of the book, and the statement—"The book is missing" may well be taken as the expression of this awareness. In order to understand clearly the meaning of the statement in question, we have to bear in mind the difference between two things, namely, the sole interest in the presence of the book and the interest in the place at which it is supposed to be. If one simply want the book, one will be impressed merely by its not being present there, and consequently emphasis laid on it may make for an ellipsis in the expression in language of the negation made. This is sufficiently evidenced by the statement—"The book is missing" which brings out not so much the background that rejects the suggestion, though, in point of fact, there are in the situation of every negation the two aspects of it, namely, the rejected and that which rejects. Whether the statement "The book is missing" is made on the basis of a single negation or a number of negations will depend upon whether the original suggestion proceeds in a categorical or a disjunctive form. In the second alternative we begin by a disjunction regarding the positions of the book, but end by a conjunction of some negations, which can be conveniently expressed as "The book is at none of the places— x^1 , x^2 , x^3 , etc. The elliptical statement—"The book is missing" is urged only by our practical interest at the moment.

5. But I cannot say that the dispute has been settled once and for all. On the contrary, it seems that I have exposed myself to fresh attacks. It may now be argued that the locus in the form of here or there, this spot or that position, far from abrogating the nature of absence as a fact, establishes it to be so; for there it is not possible

to point to anything in the locus except privation. Thus, in " Mr. Smith is not here or at this place " there is nothing in the position to contradict the suggestion of Mr. Smith being there. The only thing that is apprehended there is bare absence, though located. Barring the cases in which a room or a place is so filled as to repel the suggestion of Mr. Smith being there, it may seem that my opponents stand on vantage ground. But, if we examine the situation narrowly, we shall find that even the case cited above can be of no avail to them. We may indeed find a situation in which we can say that there is no motor car, because at the point or the position the word " there " refers to there is a hackney carriage, and such an instance will definitely go against my critics. But the instance that is urged against me is one which is all apart from those wherein a locus explicitly functions. Before taking it in hand, let me see what is precisely meant when it is maintained that, in a particular negation, say, " This table is not brown," the suggested predicate is contradicted by a definite colour in the table. Even a superficial view of the thing will reveal that, though the table in question is not brown at this moment, yet it may take on this colour at any time in future under appropriate conditions; in other words, there is nothing in the intrinsic nature of a table to discard the colour " brown. " It is nevertheless clear that a feature of the table in question stands in the way of its assuming " brown " just at the moment, and it is decisively because of this that a situation of negation arises. It is doubtless true that a negation like " Mr. Smith is not in this room " can by no means be construed into one exactly similar to that which I have just considered. Unlike the negation " This table is not brown," the negation " Mr. Smith is not in this room " appears not to possess a feature which can stand in direct opposition to the suggested inasmuch as, though Mr. Smith is not now in

the room in question, yet he may be there presently, and this may be taken to mark off the negation " Mr. Smith is not in this room " from all other kinds of negations. But one should not be very quick to discriminate between the two negations. If we look into the matter minutely, we shall find that the latter is on a level with the former in so far as the point of the possibility of the negated being at the locus in question is concerned. I have shown above that there is nothing in the nature of a table to prevent its being brown or taking on any other colour, and when its colour changes, it is not any less a table. We can well conceive a technique wherewith to change the colour of a thing forthwith. All this, however, should not cover up the main point, which is of immediate interest to us, namely, that the table as presented cannot accept the suggested qualification. The point that is of interest is whether we can likewise say that in " Mr. Smith is not in this room " the room as presented contradicts the suggestion of Mr. Smith being there. It may be retorted that, whereas in " This table is not brown " the contrary of " brown " is well-defined and explicitly presented, in " Mr. Smith is not in this room " a contrary of " Mr. Smith being in the room," even implicit, is obviously lacking. Let me then make an analysis of the nature of the incompatibles that fall within the situation of a negation. In the negation, " This table is not brown," for instance, the real suggestion is " The table is brown " where the " is " is merely a characterizing tie. There what in reality turns down the suggestion is the judgment that asserts of the table in question a definite colour which is contrary to " brown." The incompatibility between the suggestion and the actual assertion, in the ultimate analysis, turns on the incompatibility between the definite colour of the table and the colour suggested. No one can be blind to the fact that the relation of incompatibility is ultimate.

So I cannot carry the analysis any further beyond that it arises out of thinking of two different things as attempting to occupy the same point or to possess the same status of being. So the incompatibility between "brown" and "black," for instance, does no more admit of any further elucidation than that between a judgment and the suggestion the judgment repels. Hence it is idle to expect the room as presented to furnish a definite element within it, where-with to explain the relation of opposition between the room as presented and the suggestion of Mr. Smith being there. As in every situation of knowledge the actual or rather the given prevails against the ideal, and, for that matter, against the suggested, in the instance cited above the room as presented directly contradicts the suggestion of Mr. Smith being there, and this must settle the point that is in dispute. If there is still any difficulty about incompatibility and all that, it is due to a mistake which we often make, and it is this, that the table, as in the above instance, is held in abstraction from its actual determination in respect of colour, and is taken to reject by means of an adventitious element within it the quality suggested. The real contrary there, as has already been shown, is the black table or the table with any other colour except "brown," for the table in the context in question is a table with a determinate colour. Any way, we are asked to point out the element in the room, in virtue of which the room as presented rejects the suggestion of Mr. Smith being there. It is, of course, quite possible to put in the room something or some person which or whom Mr. Smith dislikes or fears, so much so that he cannot even bear the sight of either; so that we may say that, if we there at all make a negation, we make that on the basis of what Mr. Smith there dislikes or fears. But it is obvious that the incompatibility that is in view is only willed and is consequently purely subjective, and

as such has nothing to do with a logical analysis of a knowledge-situation where there is always an objective control. Besides, Mr. Smith's definite dislikes or fears which may be supposed to have a bearing on the situation of the negation under consideration, will, at their best, explain only a course of activity, *e.g.*, his keeping away from the room; they are only the conditions that will answer why he is not there; but they themselves will always fall outside the act of consciousness, which is a piece of negation proper. If a negation is based, as I contend, on incompatibility of some sort, one may legitimately demand of me an explanation of the puzzling situation of a negation like "Mr. Smith is not in this room." It may be repeated against me that there is manifestly nothing to prevent Mr. Smith's coming in this moment, and that nothing in the room has to be changed or removed to enable Mr. Smith to put in an appearance there. This is calculated to give the lie to the contention that in a negation a locus there must be and must have a very important part to play; the example also seems to establish the position that we are directly aware of absence as a fact. But the point that we should not forget is this, that "Mr. Smith is not in this room," though a negation, is not one of the same kind as "This table is not brown," and that is because of the fact that, while in the latter our interest is centred in a qualitative determination of the table, in the former our chief concern is the existence of Mr. Smith. We shall do well to bear in mind that an existent thing cannot be conceived as a quality to the place or the position where it stands. There can be at most a relation—a relation of contact or that of the contained and the container. Attempts are, of course, often made to read into the relation of contact and also into the other mentioned above, an attribution, and, on that account, an attribute or a

quality.¹ But, in point of fact, there is a long stage from attributive to existential propositions. If we do not make, it is not possible to make, a distinction between being as such and the determinate being of Mr. Smith, or, in other words, if we do not take the individual—Mr. Smith as attributive to his being, and if we fix on Mr. Smith being in relation to the room, when he is in the room, the point that has to be considered is whether or not Mr. Smith's presence stands as an attribute or quality to the room as a whole or to the place where he exists. I may, for convenience' sake, take for consideration some relevant forms of language in this connexion. Attributive assertions are generally in the form, "S is P," which is susceptible of many interpretations. I may make the matter clearer by help of a concrete illustration. In "This table is brown," for instance, we note the determinate colour that is in the table. But it would be ridiculous to say "This room is Mr. Smith," and this would bring home to our minds the absurdity of the conception of the relation between the room and Mr. Smith by way of attribution. Let me then try another way of expression and see what follows. We may have the statements "The brown colour is in the table," and "Mr. Smith is in the room." We now see that, so far as the linguistic form is concerned, one statement seems to be on a par with the other. But on reflection we find that the preposition "in" in the two cases has been taken in two different senses. In the latter the "in" indicates the relation "the contained and the container," while in the former the "in" is metaphorical, and its function is symbolic. In the second case Mr. Smith and room do not imply each other in so far as their intrinsic nature is concerned. Each is complete by itself. But

¹ Cf. The Naiyāyikas' *Ghatābhāṣavad bhūtalāṁ*, Keith's *Indian Logic and Atomism*, pp. 77-78 and also vide Cook Wilson, *Statement and Inference*, Vol. I, p. 186.

in the first case we find that, a colour cannot stand by itself, but always attaches to a thing, and that the colour in question covers the whole of the thing under consideration. The colour is not in contact with the thing; for a thing is never seen without a colour, and again a colour is never found as floating in the air all by itself as an entity.¹ This brings out the peculiar relation that subsists between the two—thing and colour, and this should prevent the affiliation of the existential propositions to the attributive.²

6. Fresh difficulties may, nevertheless, arise even from the point of view of the very relation of contact or that of the contained and the container. I may be told that without a contrary of the suggested in the given there can be no incompatibility between the suggested and the given. What is then there, it may be asked, in the room to repel the suggestion of Mr. Smith being there? There is a subtle confusion, I should say, at the basis of the contention. Here one should keep before one's mind the distinction between the two notions—prevention and contradiction, though the former may lead up to the latter. Prevention is factual, whereas contradiction is logical, in the sense that the latter is known in an operation of thought in relation to an objective situation. Now, in the application of these notions to the room in relation to Mr. Smith, we find that there is nothing to prevent Mr. Smith's presence in the room at this moment. There is nevertheless something in the presentation that contradicts the suggestion of Mr. Smith being there now. I should in this connexion point out that the notion "prevention" presupposes movement willed or imposed on the prevented and as such is not our main concern

¹ Colour, though not exactly identical with visibility, can be taken as co-extensive with it.

² Cf. Inherence or Samavāya.

in a case of absence. Further, it is not necessarily a feature in every situation of negation. In "The table is not brown" we cannot take the colour "black," for instance, in the table to prevent except metaphorically the incoming of the colour "brown." All that we have in the way of the relation between the given "black" and the suggested "brown" is the contradiction of the latter by the former in virtue of it being a fact here and now. It may now be pressed against me how to make out a case for contradiction in "Mr. Smith is not in this room." I have not to go far afield to show that the room as presented is such that it contradicts the suggestion of Mr. Smith's presence there. In reality contradiction is here between the room as perceived and the suggestion of the room with Mr. Smith in it. The situation can be best analysed with the aid of a conditional statement; on analysis the above negation is found to mean this: were Mr. Smith present in the room, it would have a look different from that it now presents. Here one should not bring up the metaphysical problem as to whether or not difference in look has anything to do with the being of a thing. Moreover, the point is not relevant to the present purpose. It is nothing extraordinary that a thing may or does assume one look after another. But none but the lovers of contradiction can accept the proposition that anything can assume two different looks at the same time in the same perspective; for in that case two different things will be found to occupy the same status of being, which is a manifest absurdity.

The truth perhaps is that I could not yet convince my critics. On the contrary, they may launch an attack from another angle. In the situation of "The table is not brown," the colour "black," for instance, that is in the table, must be removed before the table can take on another colour; but I may be told that there is in fact

nothing tangible in the room to remove in order to allow in Mr. Smith there. The question how the colour of a thing changes or is changed should not trouble us here ; for that will depend on something intrinsic in the thing itself, as in the case of the chameleon, or on a technique artificially articulated. All this that concerns facts of Nature or the practical interests of our life, has nothing to do directly with the question of a fact being given to consciousness. This much, however, we can take note of, that there is hardly any gap between the disappearance of the colour of a thing and the appearance of another in its place. We cannot say precisely at what point the pre-existing colour leaves the thing, and the new colour comes in ; for a thing to be visibly given must possess some colour. Strictly, the problem is metaphysical. It will, however, serve the present purpose to notice that, on the appearance of the new colour in the thing in question, the pre-existing colour disappears, and that the look of the room under consideration likewise changes on the appearance of Mr. Smith in the room. There is then no difficulty in interpreting the negation, " Mr. Smith is not in this room," in terms of incompatibility.

But it may be urged that the relevant suggestion, incompatibility and what are really the conditions that function to bring before consciousness the content " absence " themselves do not enter as elements either into the structure of the content known or into the act of being aware of it. This may be sought to be implemented by the contention that the situation of absence is a bit peculiar, in the sense that some suggestion on the part of the subject is required for the absence of a thing to be given as a fact. I wish that it could be so ; but, in reality, suggestion and incompatibility, far from falling outside the act of being aware of absence, are found on analysis to be two essential elements but for which there could be

no awareness of absence. This point I shall take up for consideration later on. I may, however, provisionally state that absence can mean nothing more than the locus in question contradicting the suggestion made with reference to that point. Waiving this issue for the present, I shall try to show how the position of my opponents is open to criticism. My opponents' tacit assertion that absence as a fact is subjectively determined in its state of being known forthwith brings before us the issue between Realism and Idealism in its bad form. I may, however, cut short detailed discussion by showing in advance that the issue referred to above is not in any way provoked by the contention of my critics inasmuch as they confine themselves only to the situation of absence, and that they may not say, at least they are not logically bound to, in regard to things in general, exactly what they say regarding absence. A difficulty remains all the same, and we are not helped much that way. I am really puzzled over how anything, which depends for its being as well as for its content upon an ideal function with reference to a definite objective context, can stand out there as an object. It is found in the case of ordinary perception that an object is an object for us by virtue of its being given and that an ideal process or processes are stirred up by the given; but, in the case of absence, the relation between the so-called object known and the knower is reversed; the object is taken to be brought forth into being by an interaction, so to speak, between something ideal and the actual in the context in question. We are then left with two alternatives as to the ultimate abode of the object in question: we might conceive that it was sleeping in the locus and is roused up by an ideal operation upon it, or we might take it to be conjured up into being by the knowing function as such, we do not know from where. The choice then lies between the nonsensical and the magical.

But I have good reason to say that logic is concerned with commonsense and as such will keep off both.

7. I may, however, be told that there would be no difficulty in getting absence as an object if it were realized that there are in fact different grades of objects. Details apart, there is in the contention a confusion between an object of thought and an object of Nature. An object of thought, whatever it is, is not necessarily an object of Nature also, though an object of Nature, to be known to be so, must be in a situation of knowledge an object of thought also. An object of thought means what is thought of, and an object of Nature is that which is capable of being given to consciousness and which we are obliged to experience under appropriate conditions. It is doubtless true that an object of thought may be ideally constructed as in an imagination, but it will not do to forget that the ideal construction is there done on a factual basis which is given in experience or susceptible of sensible presentation. There is, therefore, some sort of continuity between the factual and the imagined. Such being the case, they do not bend themselves to a separative treatment that they might be taken as two distinct grades of objects. The objects of one grade, were there any gradation of objects at all, must be not only distinct from those of another, but also complete by themselves in so far as their own sphere is concerned; nay, the very distinction would be determined by the difference between their sphere and any other. But such a chasm cannot be created between the imagined and the factual inasmuch as the roots of the imagined spread forth into the factual. And, if we cut out these roots, the whole structure built by imagination will topple down. Further, if we posit anything like an object in the ideal region, it will be seen, on scrutiny, that, whatever the entity that we call an object, we are unwittingly taking the word 'object' in

two different senses ; for no one, except those with whom ' object ' is the only ultimate category, would accept the position that an ideal being, whether a fact or a function, is known exactly in the same way as the objects of Nature. It may, however, be argued that it is just this difference in the modes of knowing that will, in the ultimate analysis, mark off one grade of objects from another. But my critics ought to be careful enough not to shift their ground. I may set out the difficulty involved therein in the form of a dilemma. If we lay emphasis on sensuous presentation or perception in our consideration of the objecthood of an object, we shall fail to find any other objects, in the strict sense of the term, except the things and beings of Nature ; if we, on the other hand, stress the characteristic mode of knowing a thing, and maintain that, wherever there is an act of knowing, there is the known also, the known may be equivalent to an object of thought. If, on the contrary, thought is not taken as co-extensive with the function of knowing, and, for that matter, with consciousness, we should say that the known is the object of consciousness. But, in the instances—an awareness of a house, and that of a mental process, an idea, a judgment, etc., we must note the difference in the import of the word " of." In the first case, the element " of " indicates the relation of otherness between consciousness and its content, though consciousness in the situation of the awareness of a house cannot be separated from the given. It can, however, be distinguished in introspection ; yet it is evident that the house in question as a content is not constituted by the awareness of it. In the second case, an idea or a judgment, far from being an other to consciousness, is, when truly viewed, only a definite form of consciousness. Whatever the difference between a mental process which is conscious and the reflection on it, which is nothing but its being self-conscious, it is obvious

that the word "known" as used here does not bear the usual meaning inasmuch as the knowing and the known are in a way identical.

Coming to the question of absence, however, I meet with a difficulty which is not easy to obviate. I have already put forward the reason that prevents me from positing the absence of a thing as an object like any other object of Nature. I do not, however, maintain that absence is all a matter of pure ideation. On the contrary, if it is taken to be known—it is taken to be so in so far as our ordinary experience goes—it as known is an other to the awareness of the situation in question, but it still falls far short of an object.

8. There are some who contend that all trouble regarding absence arises because of the fact that we view both the presence and the absence of a thing from the ordinary perceptive level, and that, in point of fact, there is a mode of knowing peculiar to absence itself, which is characterized as non-perception or non-cognition—*anupalabधि*.¹ The contention has, undoubtedly, great value as a polemic against those who are of the opinion that absence is given in experience and actually perceived. It has been rightly pointed out that in a situation of absence what is actually sensed is the locus. But, if we look into the matter a bit closely, we shall find that there is a great confusion between our awareness of the absence of the absent and an imaginative perception of the absent, which perception is equivalent to the suggestion that is negated. Though there is involved an idea of what is absent, yet we cannot have anything like suggestion unless and until the relevant ideal activity is directed towards a definite context. It cannot, however, be said that a

¹ Vide K. Shastri's *A Primer of Indian Logic*, p. 59, and S. Mookerjee's *The Buddhist Philosophy of Universal Flux*, p. 409 and also D. N. Dutt's *Six Ways of Knowing*, pp. 162-63.

reference is actually made to what is absent as a fact there and then, or rather that an actual assertion is made. What really occurs on the side of consciousness is something midway between judgment proper and mere idea. An idea functions as a suggestion when it is directed to a definite context. As an idea is reference, in the situation where a particular idea functions there is involved thinking imaginatively of the object or objects in question. An imaginative perception may be distinguished from bare imagination, the difference between the two being this, that, whereas in the latter the idea floats, in the former it is anchored in a context. The imagined content is remembered to have been perceived, but in an imaginative perception the content in question is felt to be as if perceived, though there is in fact no perception of it proper. It is then our obsession with the perceptibility of the absent which is, in reality, only imagined in the context of the relevant negation, and with the actual perception of the locus, that accounts for our zeal for taking absence as being perceived, while, as a matter of fact, when we try to lay hands on the so-called object 'absence' other than the locus, it invariably slips through our fingers.

Some, however, make the most of non-perception in a context of negation. There is doubtless an element of truth in the contention that the non-perception of the object which is absent, when all the conditions for the perception thereof are present, only complements our awareness of its absence. But to say that the absence of an object means merely its non-perception here and now is to miss the whole point; for there are innumerable occasions on which there are non-perceptions, there is nevertheless no awareness of any absence. This can be illustrated by a reference to some of our ordinary day-to-day experiences. I am perceiving, on a spot, for instance, a cow only; there

is evidently non-perception of all the things and beings except this cow and the place in question with its other details ; but a keen psychological insight will not justify us in asserting that there is an awareness of absence then and there, provided of course that there was not previously any suggestion of any other thing being present, which is in fact not there. Moreover, if we equate the awareness of absence with the absence of perception, that will strike straight at the theory that absence is objective ; for the very identification will eliminate out of absence all sense of objectivity and bring it over to the side of the psychical and the subjective.

Further, there is hardly to be found any experience as non-perception. It is, of course, quite easy to coin a word like "non-perception" inasmuch as, language being a matter of convention, a form of expression can be conjured up at our sweet will. But "non-perception" is an expression that expresses nothing except a lack of perception. Hence, the situation of absence cannot be explained away by the assertion that it is nothing more than a case of pure non-perception of what is taken to be absent. There is definitely some truth in the position that negation comes within the purview of perception, on the basis of which alone a solution of the difficulty involved in negation is to be sought. But we shall not do well to ignore what the theory of non-perception puts forward for consideration. What is insisted on there is, in short, this : it is extremely difficult to make out in the situation of absence a case of perception pure and simple, though there perception is admittedly involved ; for our awareness of absence occurs not wholly at the level of sensuous experience, the reason being that absence is nothing to be sensed. There is, however, no need for making non-perception into a distinct instrument of knowledge. As I have already indicated, even granted that non-perception functions as a form of knowing there,

it need not necessarily be equivalent to an awareness of absence. Besides, if we actually insist on non-perception as the form of knowledge in which absence is known, we may be led up towards the position that the knowledge of absence cannot extend beyond what is merely psychical. It is indeed true that knowledge, whatever its form and its content, is, as a matter of fact, something mental; but from this it does not follow that knowledge as such is confined to what is merely mental. In the knowledge of absence, however non-perceptual, there is a direction towards the objective world. But this direction cannot in any way be conceived as a projection of a state of the mind or consciousness; for, as I have already pointed out, an awareness of absence presupposes the perception of a locus, and, this being the case, there is always an objective control.

The exponents of the theory of non-perception as a distinct instrument of knowledge aver that in the situation of absence the locus is perceived and the thing negated is remembered, and that the knowledge of absence is purely due to a mental activity. But the truth seems to be that, when we perceive a thing or a place, we in fact remember many facts experienced in the past; there may yet be no awareness of absence, and this is precisely due to the fact that the memory of the various things previously perceived does not of necessity raise an expectation of any of them then and there. So I have to go a long way in my attempt to articulate the ideal activity but for which there would be no awareness of absence. It may be contended that, in the situation of a negation, the memory of anything will not do, and that it is only the memory of the thing, with reference to which the negation is made, that is relevant there. But this question of the relevancy of the absent will lead us far away from the simple situation of perception *cum* memory, and we may find that, though

the knowledge of absence is non-sensuous, yet it is sensuously determined.

The point that I have hinted at may seem to make absence all a matter of inference. But here too a confusion is apt to be made; to say that the knowledge of absence is inferential is not to say that an inference can be negative, in the sense that it can have negative conclusion. The question of the nature of the negative conclusion of an inference is bound up with the problem of inference as such. So I cannot go into it here; for, in that case, I shall have to consider first the fundamental nature of inference. Further, the point is not very relevant to the theme under discussion here; whatever the nature of the conclusion, affirmative or negative, an inference as a form of knowing has regard for reality, and this definitely makes for the objectivity of the fact or facts that are known through the medium of it. Granted that absence is factual either as an object or as an adjunct to an object, we can easily see that it can be known in different ways. The more relevant point that is to be considered in this connexion is whether the knowledge of absence is non-perceptual, in the sense that it is exclusively inferential.

Non-perception is taken by some as the ground of the knowledge of absence. But the position is based upon a very bad kind of *petitio principii*. The situation of absence is reasoned out thus: Here is non-perception, and there is absence wherever there is non-perception; therefore there is absence. But a little reflection will show that here absence, which is sought to be mediately known through non-perception, appears to be the already known content of the form of knowing which is characterized as non-perception, and obviously the attempt to construe non-perception into an inference breaks down.

Further, the theory is based on a false analogy. The so-called inference "Where there is non-perception there

is absence ; here is non-perception : there is therefore absence " seems to be in the form of a syllogism. No one can doubt this in so far as the form of the linguistic expression is concerned ; but difficulties will appear before us as soon as we try to find out the corresponding form of the inference that is sought to be expressed therein. Let me then take an instance of inference such as : Where there is smoke there is fire ; there is smoke yonder on the hill : there is therefore fire on the hill. Here fixing on the major premise, we find that the necessary connection indicated is from smoke to fire, so that on the presentation of smoke in a context to which we are not near enough to perceive the fire there, we infer the existence of fire over there on the strength of that of smoke at that place. Now, turning to the inference " Where there is non-perception there is absence, etc.," we find that, whereas smoke and fire that are related by way of necessity are two objective facts of Nature, in " Where there is non-perception there is absence, etc." at least non-perception is a subjective act of knowing, and, that, whereas in one of the above inferences the relation between the two facts in question is the basis of inference, in the other it is a relation between a subjective fact and an objective one that is made the ground. All discussion as to the exact nature of inference apart, I may point out that the distinction between non-perception and absence could not be like that between smoke and fire. On the other hand, without some such distinction they could not form a major premise. Waiving this point, if we look into the condition of the formation of the major of which they in their relation are the constituents, we shall find that the least that is needed for the purpose is their being given together and being known together. But, if we say that the necessity between non-perception and absence has been effected through some experience or experiences wherein they were known

together, we are bound to posit non-perception and absence side by side with reference to the context or contexts in question. And this will necessitate a twofold perception there—the perception of absence *qua* absence and the perception of non-perception. It ought to be, however, clear that the perception of absence—taking for argument's sake that absence is a fact and a perception of it is possible—would be quite different from the perception of non-perception. Fire or smoke as something objective is given in our sensible experience and, so, is said to be perceived. Non-perception, however, is not anything like them to be sensed. Hence, if we at all employ the term “perception” in the case of non-perception, we unmistakably take it in a sense quite different from that in which it is usually used. There is a difference between “I do not perceive” and “that I do not perceive.” In the first case my act of non-perceiving is expressed, whereas in the second my reflective awareness of my act of non-perceiving as a mental act is indicated. The perception of non-perception, therefore, cannot mean anything more than this sort of awareness. But reflective awareness marks an order of experience quite different from that of our ordinary perceptual experience. And it is really a vast problem how two contents belonging to two distinct orders of experience could be known together. Even if we grant that non-perception has something to do with absence, yet in the act of having non-perception as a distinct known content we move far from the actual level of non-perception, and, this being the case, how can we know non-perception and absence together? Yet, in default of such a knowledge, we cannot have even the semblance of a major premise like “Where there is non-perception there is absence.”

If we, on the contrary, take their being together at the very level of reflective experience, the term ‘together’

will have the face of its meaning altered inasmuch as it will there mean no more than that absence as the content of non-perception is known as such only in reflection ; otherwise there would be nothing to tack it on to non-perception, and so their being together even at the level of reflection is out of the question. It is no use arguing that, if absence is actually the content of non-perception, absence and non-perception are already together there ; for it is one thing to say that they are together and another to say that we know them to be such. It is our knowledge of them being together that is relevant here inasmuch as an inference is, broadly speaking, grounded on previous relevant experience or experiences. This account of being together, however, does not help us much ; for in an inference as a form of knowing we fix on a datum or data and pass on in thought to a relevant content not immediately given, on the strength of them all. There is evidently a marked difference between an inference as an ideal construction necessitated by the given in perception through the operation of a relevant past experience or experiences and a contemplative awareness of the situation of an experience or a lack of it. There is, therefore, a far cry from non-perception and absence being together at the level of reflection to that at which the inference in question as an act of knowing can take place. Besides, this analysis shows that absence is already the content of non-perception, a fact which makes against the possibility of an inference by the instrumentality of non-perception as the *probans*. Supposing that absence is a fact and non-perception like absence is immediately given in our experience, non-perception to act as the *probans* must be in a necessary relation with absence. Where does then this necessity come from ? Non-perception co-exists with many other things as with absence, and, if between non-perception and absence there is only co-existence in the matter-of-fact way, we

cannot understand how out of this there can ever arise anything like necessity between them. Moreover, if non-perception is capable of being given alone in a situation, and if non-perception and absence are related by way of necessity, absence must be there along with non-perception. But what prevents it from being given to us at the moment? Without settling this issue we cannot possibly make out a case for an inference here with non-perception as the ground.

9. Fresh attempts may, however, be made to read an inference into our knowledge of absence, and that may well be based on a new interpretation of the word 'non-perception.' It may be taken to mean "perception of only one of the terms that are capable of being perceived together."¹ Thus, it is contended that, whereas ordinarily we perceive the ground and the jar together, in the case of the absence of a jar in a relevant context we perceive only the ground, and this our perception is to be construed into non-perception of the jar. We can without difficulty grasp that the ground and our perception of it are positive; but whatever might be the mysterious process wherewith the positive perception is done into the relevant negation, there is no reason whatsoever why we should not stop with the non-perception of the jar, which is *ipso facto* identical with the knowledge of the absence of the jar and can be expressed as being our awareness of 'no jar.' In that case there would be no need for an inference. To turn to the so-called transformation of the perception of the ground into the non-perception of the jar, if we are to take "non-perception" strictly to mean perception of one of the terms that are capable of being perceived together, "non-perception" and "perception" can be, in spite of their contradictory forms, synonymous with each other, or

¹ *The Buddhist Philosophy of Universal Flux*, pp. 417-18.

rather the word " non-perception " is redundant ; for in every case of perception we might say that what we perceive could be perceived together with other things. However, if the non-perception of a jar is identified with the perception of the ground, we are faced with a manifest absurdity. On the contrary, if the non-perception of the jar is taken as the fringe of the perception of the ground, any identification of the non-perception with the perception is out of the question. It would rather appear that the question of the non-perception of the jar arises only because of the ground and the jar having been in the past perceived together. In short, the problem that we have to tackle is : What is this non-perception ? If it is to mean our awareness of the absence of the jar, we do not need an inference to know absence through non-perception as the *probans*. If, on the other hand, non-perception is taken to signify the mental act of imagining the jar, it is subjective so far as the content in question is concerned. Not only this, but that in that case we cannot also explain the inference in question. If absence is to be known as the content of the conclusion of an inference, we have to keep apart, as in the above instance, the non-perception of the jar, which issues out of the perception of the ground, and the absence of the jar, in the sense that the absence is never the content of the non-perception. But then what becomes of the major " Where there is non-perception there is absence " ?

CHAPTER III

NEGATION AS PURELY SUBJECTIVE

1. The attempt to make an inference out of the situation of negation may be abandoned, and it may be contended that absence is only a conceptual construction on the basis of a datum that is perceived and that there is in fact nothing to correspond to this construction. Though from this point of view there is no need for identifying absence with non-perception or rather with the content thereof, yet what we come to that way is this, that absence is something purely subjective, which is an extreme opposite of the position that absence is an objective fact as much as any other fact of Nature. Anyway, the theory of absence as a conceptual construction represents only one of the different forms of subjectivism that have been developed in the attempt to explain negation. Let me examine them, one by one, in their broad features.

To take up the question of conceptual construction first. Before entering upon discussion on the point, I shall do well to find out what could be meant by conceptual construction. It may mean more than one thing. It may, first of all, be taken as a concept ; absence as a conceptual construction would be then just a concept of absence, which has admittedly no objective counterpart. But the main point that we have to consider before anything else is whether any concept of absence is significant. On the face of it, the so-called concept of absence may appear to be non-significant and as much as a pseudo-concept ; for usually a concept is a shorthand representation of a relevant fact or facts. It may, however, be pointed out that, though

there is nothing factual corresponding to the concept of absence, yet the concept itself can well be significant exactly in the same way as the concept, for instance, "Centaur," is significant. But we shall be saved much confusion, if we note that, whereas ordinarily a concept is formed strictly under an objective control, in the construction of such a concept as "Centaur," we are comparatively free in accumulating and adjusting a number of concepts in order to form an ideal whole pointing towards the objective world. The chief difference between an ordinary concept, say, "cow," and a concept like "Centaur" lies in this that in the case of the concept "cow" we pass from the realm of facts to the relevant ideation, while in the other—"Centaur"—we are confined within the sphere of ideation in so far as the construction of the concept is concerned. So in order to save the significance of the concept "absence," if we make it rank with the concept "Centaur," we may be asked: What are the concepts that are the constituents of the concept "absence"? In the construction of the concept "Centaur" we make use of two distinct concepts—"horse" and "man." But a number of concepts, however large the number, when brought together, cannot generate in one's mind with all their diversity a sense of absence. A distinction between idea and concept will not lead us any nearer to the solution of the problem; for in that case we only speak of some ideas as being the constituents of the concept "Centaur" or "absence," as the case may be. Anyhow a complex concept will partake of the essential nature of its constituent ideas, which consists in referring beyond the mental region towards the factual world. So any complex of ideas, that is constructed by creative imagination, must have a positive import. Hence, if absence is to be regarded as something purely subjective, the possibility of the construction of the concept "absence" is ruled out.

If we, on the contrary, take absence not as absence in general, but as the absence of something definite which absence as such is neither a concept or an idea but is just a conceptual construction, we may find that, as a matter of fact, it is not or cannot be rigidly kept within the limits of subjectivity. It may, however, be contended that such a construction, though based on perception of a fact in a context, has nothing in it to make it turn towards the factual situation in question. I perceive the ground, for instance, and am aware of the absence of a jar there. Though it is not possible, as I have already shown, to get absence as a fact, yet it will not do to say that in the situation of absence there I deal with something purely subjective. Were it actually the case, the so-called construction could not be based on perception of a fact. Thus, my perception of the ground *qua* ground could not in any way lead to any sense of the absence of the jar. It is not that we coin a word first and then look for the appropriate experience or experiences to clothe therewith, or for what is or are to be experienced to fill it with meaning. So, in the instance cited above, if we pass from perception of the ground to a sense of the absence of the jar, there must undeniably be an experience besides perception of the ground which is a fact given there. It is that experience which is sought to be expressed through the phrase "the absence of the jar." What that experience is I shall show later on. But this much is by now certain that we cannot get absence of a thing merely as a subjective fact or fiction.

2. In the analysis made so far we have seen that a negation represents a factual situation, though strictly no fact, and that there is for that reason a necessity for objectward reference; yet we cannot get negation or absence by itself to stand for any unitary concrete thing. An attempt may, however, be made to explain away negation altogether.

As I have indicated above, the relevant suggestion and, for that matter, the relevant ideal content plays a very important rôle in our awareness of the absence of a thing. This fact has perhaps led some logicians to treat negation as purely subjective.¹ "Negation," as Dr. F. C. S. Schiller puts it, "is always a 'subjective', or better *human* device of thought. It is a confession of human weakness that cannot go direct to the positive core of reality. It is a tribute to the instability of being. It is always relative to human purposes."² I fully endorse Dr. Schiller's assertion that negation is a human device of thought and is relative to human purpose; for thought or knowing we are concerned with in logic is after all human, and in our analysis of it we have got to reckon with the interests of our life. It is, however, one thing to say that negation is a human device of thought and another to say that negation is purely subjective. A suggestion or an idea directed to a point beyond it, a suggestion we negate in a negation, does not evidently proceed from the fact presented; so the given by itself cannot account for the negation we have recourse to in the context in question. It is then quite natural to hold that a negation is a confession of human weakness. From this point of view, all negations appear as a mere failure on our part to know something, a failure which can be further articulated as ignorance. Usually we take ignorance as a lack of knowledge. But, if we examine the notion narrowly, it will be found to defeat itself. When I am ignorant of a thing, I say, "I do not know." For instance, a visitor to Calcutta asks me about the location of the Pareshnath Temple, and I tell him that I do not know exactly where it is situated. If we take knowing or knowledge in a wide

¹ Cf. Prabhākara's theory of Negation, *The Buddhist Philosophy of Universal Flux* p. 409.

² *Formal Logic*, p. 139.

sense to denote any cognitive state of consciousness, we shall find that, though I am ignorant of the actual site of the Temple, yet the mental state at the moment is not all a vacuum ; there is at least an awareness of the person in question and of what he says unto me. It may, however, be pointed out that all this is not at all relevant here ; for what we ought to concern ourselves with immediately is the absence of a knowledge of the thing referred to. In our ordinary speech we indiscriminately use the word " absence, " and we are apt to think that the word " absence " in all contexts means one and the same thing. But a little reflection will show that the notions " absence of a thing " and " absence of a knowledge of a thing " are poles apart in so far as their actual import is concerned. In the case of the absence of a thing we can well have a conception of the thing, though it is not actually existent in the context in question, and it is verily on this that the possibility of any awareness of the absence of an object or its adjuncts depends. The notion " absence of a knowledge of a thing " is, however, on a different footing. We cannot mentally represent a piece of knowledge and at the same time be conscious of its absence. In order to be aware of the absence of a knowledge we must have that knowledge. In other words, our knowledge of the absence of a knowledge of a thing will demand the knowledge itself which is supposed to be negated. So, if there is a lack of a knowledge as a function, we cannot be conscious of this lack and of it as the absence of the knowledge in question. And this follows from the very nature of knowledge or knowing as a psychical process. So it will be very difficult to reduce a state of ignorance to that of the absence of a knowledge of a thing. If the word " absence " is employed here, its meaning function is symbolic, in the sense that it is made to convey a sense of something which has not even a remote resemblance to what is ordinarily

meant by it ; ignorance is found, on analysis, to be no absence of a knowledge in the strict sense of the term. What then is ignorance ? In the instance cited above, I am asked the place of the Temple in the city of Calcutta, and on being asked I am left with a suggestion which is, in short, an idea meaning a temple called so-and-so, and I am at the same time conscious that I fail to realize the idea as intended by the inquirer. It is possible to point out the psychological conditions, at least some, that contribute to this failure, and they can well be summed up by the statement that I cannot realize the content in question now because I could not previously come in contact with the Temple at its actual place ; or granted that I actually perceived it in the past, the failure on my part may be found to be a failure of memory. The failure in question will undoubtedly preclude many other possible sources of the knowledge, and, for the matter of that, the various possible ways of determining the content under consideration. But all these points should not come up to cover the point at issue ; for, whatever the psychological ways in which the failure is determined, if once it occur, we find that in the awareness of it there is not even a tinge of negation, though that is given expression to in a form of language which contains the negative particle " not. " Strictly then the failure is a failure of will to realize the innate tendency in the function of knowing to fix on an ideal apparatus wherewith fresh facts are assimilated into an ever-growing structure of knowledge. The usual course in the situation of knowledge is from fact to idea, and this indicates among other things that an idea *qua* idea cannot be realized in consciousness all apart from some sort of factual basis. Mere ideal constructions there may be, but constructions that are ideal in an absolute sense are fictions. When I am asked about the Pareshnath Temple, as in the above instance, if I in fact know nothing of it

except the name just uttered before me, I fail to realize in my consciousness what is meant by the name uttered, and the failure on my part will be equivalent to the fact that the mental representation of what is meant by the name does not take shape, and this shows that the minimum of factual situation that is required there is lacking. Had I been in possession of the idea of the Pareshnath Temple, I could have told the inquirer exactly where the temple stands. It may, however, be argued that I at least entertain "the Pareshnath Temple," and that this is sufficient to show that an idea is working. But I have not to go far for the reason why there is a sharp distinction between "the Pareshnath Temple" and "the Pareshnath—a temple." In the former we are concerned with the particular and definite temple that is called Pareshnath Temple; emphasis is laid there on the particularity and determinateness of the Temple as a temple. In the latter the universal "temple" is stressed, and, in point of fact, there we begin with "the Pareshnath" as a mere word which afterwards acquires meaning when it is stated to be a temple. Here the article "a" is significant; though it shows that the Pareshnath is a particular determination of the universal "temple," yet there is after all an indeterminate reference to the determination of the Pareshnath as a determinate temple inasmuch as the Pareshnath as a determinate temple has not yet fallen within my experience. So in spite of the fact that we use the idea "temple" in this connexion, the idea of the Pareshnath Temple is lacking; for it cannot be realized in my experience without the relevant perceptual basis on which I can come in contact with the temple in question. I may, however, allow for the fact that there is at least a hypothetical idea of the temple in question, which is obtained through construction. But that will be of no avail. A hypothetical idea undoubtedly facilitates understanding a word we are not familiar with by bringing

it under a general name ; it will nevertheless fall far short of a representation of the thing in question, the lack of which is the cause of the failure on my part to know the thing when I am required to know it. And this failure to realize an idea is in a sense an ultimate fact within our experience, which does not admit of any further analysis. As this failure is not a negation of any knowledge or knowing, its expression in the form " I do not know, etc.," though negative in appearance, is really indicative of a positive state of consciousness. Confession of ignorance is then nothing but the consciousness of this failure. But negation proper cannot likewise be shown to be a case in which we simply fail to reach out to reality. In the instances discussed above, " Mr. Smith is not in this room," or " The table is not brown," we can fix on what distinguishes each of them from such a statement as " I do not know whether the table is brown or not, or whether Mr. Smith is there in the room. " In the latter set of instances I express my ignorance of what is suggested to me, whereas in the former it is not my failure to know something definite about Mr. Smith or about the table in question that is expressed ; there, on the contrary, I make an ideal experiment with a real with which I am in contact at the perceptual level. A negation, therefore, far from being a case of human ignorance, is in fact a complex situation of knowledge in which the real plays an important part. As a negation is not found to be a case of ignorance, and, for the matter of that, of our failure to reach reality, the question whether it is purely subjective or not does not arise at all. It would simplify the situation of negation a good deal, if we could reduce negation to such a failure ; but this, as I have just shown, is impossible. Thus, by a single stroke, I cut up the two points put forward by Dr. Schiller.

3. Bergson repudiates the possibility of any idea of nothing. Our actions, as he points out, proceed under

the urge of desire and vital needs.¹ The starting-point of our action is just a want and can be represented as a void which is filled in the end. But difficulty arises when this relation between the beginning of an action and its end is extended into the objective realm of Nature and when we conceive a void filled or to be filled by a reality. It is something of an illusion on the part of philosophers to explain the origin of the world by way of an original void having been filled by a reality or realities. Truly speaking, if the idea of nothing is to signify "an annihilation of all things," it is not at all an idea inasmuch as we cannot possibly conceive or image such a state. Our doubting everything will not amount to an absolute annihilation. Even if we shut our eyes and make the other senses inoperative and try to think of an utter non-existence, we shall be left with some form of the existence of our own. So the idea of nothing is nonsensical.

There is, however, the problem : If an absolute nothing is meaningless, a negation, or rather the absence of a thing may nevertheless be a fact. "If affirmation affirms an objective reality," says Bergson, "it seems that negation must affirm a non-reality equally objective."² But what here seems to be a fact is not really a fact. He shows in his own way that negation and, for that matter, non-existence is relative to the human mind and its feelings and interests. "Suppress all interest, all feeling, and there is nothing left but the reality that flows."³ Then the question is : Whether absence is all a matter of feeling. Bergson is all for the subjectivity of negation, and sometimes goes the length of asserting that it is not "so much thought as feeling."⁴ He, however, prefers

¹ *Creative Evolution*, p. 314.

² *Op. cit.*, p. 312.

³ *Op. cit.*, p. 311.

⁴ *Op. cit.*, p. 297.

to go into details on the point. According to him, there are two main conditions of absence that are purely psychological, namely, recollection and expectation. It is only when we remember an object previously known and expect it in a context and are disappointed on finding another there instead of it, that a feeling of absence arises. Should we then say that absence is nothing factual, but is simply the feeling of disappointment? Bergson seems to be of the opinion that, in the situation of so-called absence or non-existence, what is known is a reality other than what is expected. There is, therefore, according to him, no void as an object of thought. It will not do, however, to say that absence is nothing but a feeling of disappointment. I feel thirsty, for example, and am disappointed on finding no water in the jar in my room where I expected to get it. It is undoubtedly true that, despite disappointment, the positive fact that is there is the jar. But the jar by itself cannot produce in me any disappointment. On the contrary, an expectation of water there, as in itself, cannot be linked to the feeling of disappointment; for any such feeling is consequent upon the non-fulfilment of the expectation. The point is, in short, this, that, if I were disappointed in this particular case, it was because of the non-existence of water. Obviously then my feeling of disappointment, far from being identical with the absence of water, presupposes it and my awareness of it. It may be that there is no such fact as absence or non-existence, and this I have already tried to establish. It nevertheless remains to be explained how it is that we seem to know and talk about anything like absence of a thing.

Bergson steps beyond his "feeling" theory of negation, if I may so call it, in contending that negative judgments formulate a contrast between two kinds of existence, possible and actual—"one thought and the other

found.”¹ This statement brings us to a theory of negation, which is quite the opposite of Bergson’s. We can formulate a contrast between any two things only on the supposition that there is a distinction or difference that separates them, and if such a formulation as this be the proper function of a negative judgment, one can with good reason maintain that a negative assertion expresses our awareness of something real and objective, which is in fact distinction or difference. In the event of such a view of negation being untenable, it would be very hard for Bergson to make out of the said contrast a case for negation. If there are really two kinds of existence, possible and actual, whatever the details regarding the relation between the possible and the actual may be, the possible is ideal in relation to the actual. Thus, in the instance considered above, we find that, while the jar is actual, water is possible. It is also to be noticed that an expectation of water in the jar and an actual perception of the jar and a look into it are all subservient to the formulation of the contrast between the jar as actual and water as ideal, which, in short, means that the jar is the object of my perception and water a mere idea in my mind. In this way we can have a contrast between any actual fact and any idea, even between a particular fact and the corresponding idea. But where is the negation? The negation, “There is no water in the jar,” cannot be taken to mean merely the distinction between the jar as an actual fact and water as an idea. Possibility may, however, be taken just in the usual sense. Thus, when water is possible in the jar in question, it may be meant that, though water is not there in the jar, it may be or might have been there. But we are still left in the situation the foregoing analysis has revealed. If we take into consideration the subtle

¹ Creative Evolution, p. 309.

distinction between possibility of a thing and the thing itself that is possible in our attempt to interpret a negation in terms of the contrast between the actual and the possible, we are led over again to adopt distinction as the soul of negation; for possibility is not constitutive of what is possible.

Moreover, an expectation of a thing presupposes its possibility. I look for water, for instance, in its relevant place or places and find none of it; but failure on my part to get water in the proper place does not annul its possibility there. So the contrast between the actual and the possible would be found working at the back of every significant negation. If we draw apart the contrast and its formulation in an abstraction and equate the formulation to the intellectual function in negation, it still remains to be considered why there should be a reference at all to any factual context of experience; we shall otherwise have all negations represent in a very subtle way the contrast between a fact and an idea. To put the matter the other way about, in ordinary negations we find ourselves in contact with some contexts of concrete perceptual experience. The relevancy of such contexts must needs be explained, but cannot be explained away.

Bergson sometimes lays stress on the function of negation in our experience and social life. Negation doubtless helps us ward off errors,¹ and does a hundred other things. The question of practical value is relevant to pedagogics and, to a certain extent, to social science. But the utilities and uses of negation cannot throw any light on the fundamental structure of negation as a function of thought.

Bergson, however, does not stop short at this account; he attempts further elaboration of the theme. In the

¹ Cf. Josiah Royce, his article on Negation in *Encyclopaedia of Religion and Ethics*. Kant, *The Critique of Pure Reason*, p. 395, Tr. by Meiklejohn.

analysis of negation as purely subjective, he fixes on its two main constituents, namely, substitution and preference, the first falling on the factual side and the second on the subjective,¹ which two in plain language mean an expectation of a thing and a perception of something that is the other of the expected. From all this it follows that our awareness of absence is after all based on something objective and hence cannot be wholly confined to conditions that are purely subjective. But Bergson obviously makes light of the objective basis in taking negation as an affirmation of an affirmation, that is, as a judgment upon a judgment. "If I say," as he puts it, "'This table is not white,'" I surely do not express something I have perceived, for I have seen black and not an absence of white. It is, therefore, at bottom, not on the table itself that I bring this judgment to bear, but rather on the judgment that would declare the table white. I judge a judgment and not the table."²

If judgment were confined to mere ideas in the sense of images, and, if negation were purely a matter between two judgments, there would consequently be much force in the contention that negation is all subjective. But Bergson's very example of judgment suggests a view of judgment, according to which a judgment of the form, "This table is white," indicates contact with fact. Theories of judgment apart, fixing upon the illustration given by Bergson himself, we find that the negation, "This table is not white," to be purely subjective, must be an act of thought, which is subjectively determined with reference to the judgment which would declare the table white. In that case the negation together with the so-called judgment against which it is directed will turn out to be a mere play of imagination. The negation will be

¹ *Creative Evolution*, p. 307.

² *Ibid.*, pp. 303-04.

reduced to rejection—an act of will, and all significance will be taken away from it as a piece of intellection. That the judgment “This table is white” is not a matter of fancy is shown by the demonstrative employed therein. “This table is white,” to be significant, must of necessity imply contact with a definite table in a particular context and, what is more, the judgment as a definite piece of knowledge must have been made under an objective control, under the control of the objective fact—the table with the colour “white.” Such being actually the case, it would not be true to say that the negation “This table is not white” has nothing to do with the table in question. On the other hand, the situation of the table has a double bearing on that. First, the table with its presented colour is the objective content of the judgment, “This table is white”; secondly, the judgment, “This table is not white,” to be made with reference to “This table is white,” must have to refer to the real colour of the table. Now the point that emerges out of the analysis is that a significant negation cannot be confined within the bounds of pure subjectivity.

But this is not all. Fresh difficulties will confront us when we come to consider the statement that in the negation “This table is not white” we judge the judgment that would declare the table white. The judgment that would declare the table white is not the judgment that declares the table white; for such a judgment is thwarted by the perception of the table to be, say, black. The judgment that would declare the table white is only a possible judgment, and a possible judgment not being actual, whatever else it is, is not a judgment. Bergson has then to modify his position, and he himself asserts that “to deny always consists in setting aside a possible affirmation.”¹ The whole thing then hinges upon this

¹ *Creative Evolution*, p. 303.

act of setting aside a possible affirmation. If substitution indicates the positive reality that is known or perceived in the context of a negation—this Bergson repeatedly asserts—the act of setting aside a possible affirmation with reference to the point at which the expected is replaced, must be, in the ultimate analysis, determined by a positive feature of the substitute. Thus, Bergson is bound to abandon his position that negation is wholly subjective and bring himself much near to the position I am trying to establish.

4. Some, however, attempt from another angle to treat negation as purely subjective. But strange to say that subjectivism is made to stand alongside of the objectivity of the ground on which negation proper is supposed to be based. Thus, along with the theory that judgment is reference to reality, it is maintained that negative judgment also must have positive basis. It is contended that “logical negation cannot be so strictly related to fact as is logical assertion—we might say that as such and in its own strict character it is simply subjective.”¹ What leads to this erroneous view is perhaps the fact that negation is more ideal than affirmation. Negation is “one degree more complex than affirmation.” This difference is articulated by the statement that in negation reference of an idea to a fact in perception is itself an idea.² Let me consider what is exactly meant by the contention. In a negation like “This table is not brown” it may seem that it is the idea “brown” that is here negated. But really there cannot be any question of exclusion in so far as an idea *qua* idea is concerned. I may perceive a table with a definite colour and may at the same time think of many other colours without any sense

¹ Bradley, *The Principles of Logic*, Vol. I. p. 120.

² *Ibid.*, p. 114. Bradley subsequently corrects this statement. *Vide* the additional note 18, p. 127, and also T. E. 6, Vol. II, p. 666.

of antagonism whatsoever between the colours imagined and that which is actually perceived in the context in question. Opposition appears only when we go in not with a mere idea, but with a suggestion which is nothing but the conception of the thing under consideration being qualified in a definite way, say, as brown. This conception is more than an idea, but must be less than a judgment, and as such is a mere suggestion which is equivalent to an idea directed to a point in some objective context. It will be made clearer if we look into the distinction between "a table being brown" and "the table being brown." The "the" in the second example brings out the sense of the context in which the subject of the proposed qualification appears, and also points out how we step beyond a mere idea which is represented by the first example. In "a table being brown" we are left with an idea, and there is no indication as to which table and where, and this follows from the very nature of ideas that depend on universals for their being. In the second case, however, the idea "a table being brown" is fixed on and directed to a context known to the subject who performs the negation. In spite of the direction in the suggestion towards an objective context, the fact remains that the suggestion is subjective, in the sense that it is not directly determined by the context referred to, but rather proceeds from the side of the subject himself under the stress of some interest. This may indeed prejudice one against negation as dealing with a real. But the truth is that the suggestion itself is not all about a negation; it is only one half, or rather one-third of the whole situation.

The position that negation is purely subjective may be found to hinge upon a definite theory of judgment. If judgment is defined as an act of referring an ideal content to Reality, a difficulty forthwith presents itself in the situation of negation. Along with the said theory of

judgment, idea is adopted as reference. Waiving the discussion as to the exact relation between idea and judgment so defined, I may point out that, if there is in a negation a mere idea, there is obviously a case for subjectivism, and that, if an idea is actually referred, there is a full-fledged judgment. But the difficulty is that, while a mere idea will fall far short of a negation, an actual reference will leave no scope for a negation. It may, however, be argued that, whereas in an affirmation reference is direct and immediate, in a negation the very reference of the ideal content to fact is an idea. It is rather difficult to keep in step with these zigzags. But a patient search will reveal that a very simple truth is conveyed by this circumlocution. It is true that sometimes a part of an idea appears as the idea that is negated. But that is due to confusion on our part. When in a situation of negation, X is the subject and a—b the qualification, because the qualification is not actually made—otherwise negation would be out of the question—what is sought to be qualified is to be taken at the ideal level; in other words, the qualification intended is prefigured in the relevant ideation. To put the matter differently, the idea that actually functions here is X (a—b) and not mere a—b, so that we are not getting reference of a part of an idea as an idea, but the whole of the idea that is in operation.

The distinction between an idea as reference and reference of an idea as an idea is based upon the confusion that reference as such is attributive or predicative. Strictly speaking, there cannot be anything like idea of an idea. So it is futile to attempt to show that negation is subjective. It is, of course, true that an idea *qua* idea is not anything that happens in *rerum natura*, and is in this sense subjective. There is, however, no point in saying that, as there is an idea involved in the situation of negation, it must be

wholly a process that takes place only in our head. Knowledge as a mental process is subjective, and negation being a form of knowledge must have this fundamental characteristic. Doubtless there can be no two opinions about it ; but from this it does not follow that knowledge and, for that matter, negation is rigidly confined within the bounds of subjectivity.¹ Further, it is very difficult to see how from the ideality of the idea involved within it subjectivity of negation can follow. We are repeatedly told, on the other hand, that a negation is based on a positive ground, so much so that it is in fact exclusion by the real of an ideal content. In this attempt to mend the theory, however, its exponent is not in any way warranted in saying that, though what the idea in question refers to is not realized here and now, yet the ideal content is not absolutely excluded ; " the content qualifies elsewhere the universe." ² I, for my part, may accept the statement. But I cannot see how it improves matters. We may say, if we choose, that in a negation the reference of the idea that is used is itself an idea ; but the former idea, unlike the latter, doubtless refers to a fact that is real elsewhere. On the other hand, the truth is that the ideal content that actually functions and is excluded by the real is admittedly the whole idea which comprises what is regarded, at first view, as the relevant idea, and the so-called reference of that idea. Bringing in the illustration given in the text under discussion, we get X to represent the subject that is sought to be qualified, and X (a—b) the ideal content which is rejected. Now, if X represent a subject that is definite here and now, and if X (a—b) be the actual

¹ Bradley himself recognizes this point. *Vid.* his *T. E.* 6, *Logic*, Vol. II, p. 666. " The process now," he says there, " is nothing except so far as it can be taken as happening in me and is thus regarded in the character of a mere psychical event. So viewed it becomes subjective." But who doubts it ? It is a truism to say so. This, however, falls far short of an account of negation proper.

² *Ibid.*, p. 665, and *The Essays on Truth and Reality*, p. 40.

idea that is in operation, in the negation in question we cannot make out how its reference can be real elsewhere outside the situation of the negation. It can, of course, be retorted, why not? We can well think of the idea as forming an element in some other judgment that is positive and affirmative, a judgment in which reference to fact is actually made. There is no denying that with $X(a-b)$ as an idea I might have made judgments in the past and may make many others in future; but this is all about what the idea in question did and can do in this or that situation of knowledge. That will not, however, tend to make the idea *qua* idea point to the reality of what it refers to here and now. Further, in a negation, in so far as we proceed with an ideal content, there is admittedly no judgment; on the contrary, there the idea in the context in question is a mere idea and as such is a floating one in which reference is indefinite, in the sense that the positions or the contexts in which its reference is realized or can be realized are, in point of fact, imagined in an incomplete disjunction which is not itself very articulate. Strictly then, though in a judgment the usual course is from fact to idea, and, though an idea has essentially a factward reference, yet we cannot deduce merely from an idea its factual counterpart. And through this cleavage between fact and idea into the situation of negation subjectivism may enter. But subjectivism can creep in only by destroying negation itself inasmuch as with a mere idea we are as far from negation as from affirmation. One might then choose an alternative course that would lead one straight to subjectivism, and that course is none except that followed by Dr. Schiller. In that case all negations could be read as cases of pure ignorance, and one could end up by saying, as I have already indicated, that in a negation proper nothing like an articulate idea functions. I can keep clear of subjectivism if I can only show that

there is necessity for some orientation in an idea itself before it can be employed in the situation of a negation.¹

5. There may be an attempt to save factward reference in a negation by reading a disjunction into it. Thus, according to some, a negative phrase is a descriptive phrase that ambiguously refers to "what is meant by a number of positive propositions, the meaning of some one of which is the meaning of the negation."² I may, first of all, point out that there should be no confusion between an actual negation and its expression; and we should, in this connexion, bear in mind the distinction between the point of view of the subject who experiences a situation of negation and gives expression to this his experience and that of another who approaches the problem of the negation from the expression thereof in language. If I come on the negative statement, for instance "The sun is not shining," I cannot, of course, from the statement itself say exactly on what ground it is made, and, if I find any reference beyond the statement, it will be found to be all ambiguous. Besides, this ambiguity will crystallize into a piece of disjunction in which each of the alternatives, taken by itself, may assert a fact. But this disjunctive reference in a negative statement brings to light the fact that, what a negation is, is known beforehand. Thus in my particular experience represented by "The sun is not shining" I find at a time as the ground of the negation one of a number of facts that may or may not be incompatible among themselves. And it is because of my previous experience or experiences that the negative statement can bring before my mind a disjunction; the number of the alternatives will also be determined by the limits of my relevant experiences. But the point that is to be considered is whether this disjunctive reference itself

¹ I shall take up this point towards the end of the discussion on negation.

² Eaton, *Symbolism and Truth*, p. 199, and also *Mind*, N. S., Vol. XX, 6, 1917.

constitutes the meaning of a negative sentence. A little reflection will show that a negative sentence means—if it is to mean anything—the situation of the corresponding negation, provided, of course, that there are no negative facts to be meant by it. The very disjunction that is made much of in connexion with a negative statement shows that the negation under consideration is made on ground of a positive fact; otherwise, the disjunction will defeat itself, and we shall be at a loss to account for it even as the fringe of the meaning of the negative expression. Hence I cannot persuade myself to take a negative statement as a distorted expression in language of a piece of disjunction, or as a tortuous approach towards an actual or possible case of negation. A negative expression ideally holds the substance of what actually happens in a context of negation. But this is not to say that a negation is nothing more than an assertion of a positive fact; for there is manifestly something in the sense of a negation being made on the ground of a positive fact contradicting the relevant suggestion. If a negative expression mean a negation, it must represent the precise situation of the negation. So I cannot see eye to eye with those who contend that in a negative proposition there is nothing more than a disjunctive reference to a number of positive facts. A negative proposition like any other proposition is significant, but it is also true that the objective counterpart which is the meant is not in itself an object. The actual positive basis on which a negation is or may be made is, therefore, left undetermined, and this leads to an ambiguous reference to possible grounds. This, however, does not enter into the core of the meaning of a negative phrase, but is rather to be treated as the fringe of its meaning, which, though usually noticed, need not necessarily be noticed; for we might stop short and imagine only one definite possible ground.

Negation may, however, be sought to be linked up with disjunction, and sometimes the way the connexion is established seems to guarantee its validity. According to some, negation is eliminative and rests on a true disjunction.¹ When it is maintained that negation rests on a true disjunction, it may be taken to mean that no negation is possible apart from a disjunction, and that in a particular situation we begin by a disjunction implicit or explicit and end by having a negation on that basis. Thus, "The table is not brown," for instance, may be taken to presuppose some alternative ways of qualifying the table in question, in so far as its colour is concerned, of which alternatives the colour negated is one; there are at least two alternatives—the colour "brown" and the definite colour in the table on the ground of which the negation is made. There are, in short, some possibilities with reference to the colour of the table, and these admit of a presentation in the form of a disjunction. But, if we look closely into the matter, we shall find that no disjunction, whatever the terms alternated, does enter into the very situation which negation proper covers. In the above instance, we find that the only thing presupposed by the piece of negation is the possibility of the colour "brown" in the table, which in its turn proceeds from an actuality in experience, and it is because of this that a suggestion of the colour in question as inhering in the subject which rejects it is made. But by no stretch of imagination we can see that there should be within a negation *qua* negation a representation of some possibilities with regard to the subject in question; for what is required for a negation is a suggestion and a real given with a determination relevant to the purpose. If, in the face of

¹ Proceedings, Aristotelian Society, Supplementary Vol. IX, pp. 72-76, and Joseph, *Logic* p. 172, where he suggests the theory. *Vide* also John Dewey, *The Theory of Inquiry* (Chap. X).

such facts, any one insist that a negation is, in reality, based on a disjunction, there is evidently, I should say, a confusion between the basis of a thing and its implication ; and in fact the cart is put before the horse. The fact is that it is in the situation of negation that we for the first time come to know of anything like incompatibles and, for that reason, incompatibility ; for it is only there that two contents are found to clash with each other. *A fortiori*, the sense of disjunction emerges out of the sense of incompatibility that is an offshoot of a real contradicting a suggestion that is made with reference to it. I may even go so far as to say that, from the point of view of the growth of experience, negation appears to be perhaps the most effective way of knowing that a subject could be determined otherwise than the suggestion indicates. So I have reason enough to maintain that disjunction is an implication¹ of negation, and that it can in no way be made into the foundation on which negation as an intellectual function rests.

I have done with a part of the contention I began with for consideration. The other part, namely, that negation is eliminative of the alternatives of a disjunction, though taken along with that just discussed and discarded, can be made to stand on its own ground. But the point that demands attention is : what is true of a negative proposition or statement need not necessarily be true of a negation. Fixing on the fundamental characteristic of negation, we find that, even if there be an articulate disjunction at the back of, or prior to, a piece of negation, the negation itself sets at rest the disjunctive process,

¹ Cf. Bradley's T. E. 6, p. 666.

"Negation in short," says he, "*implies at its base* (italics mine) a disjunction which is real." So he seems to maintain a theory analogous to that which has just been criticized.

thus forestalling the question of elimination, inasmuch as it ends by bringing out the actuality of one of the alternatives proposed or thought of. A process of elimination is intelligible only when one of the possibilities suggested is done away with and the rest of the disjuncted alternatives are left as they were originally. But, as I have shown above, even a negative statement need not of necessity include a sense of disjunction in its meaning; for there the meant is always the situation of a negation for which the suggestion of one definite possibility suffices, the suggestion itself precluding any alternation between some possibilities. It may, however, be contended that the suggestion itself may be in the form of a disjunction. Granting that the suggestion in the case of a negation may be so, let me begin with one, such as "The table in that room is either red or green or blue." When I go to perceive the table to be, say, red, what would be the actual negation? There would presumably be a disjunctive negation, if I may so call it, which can be written down as "The table is neither green nor blue." If we look into the disjunction, "The table is either red or green or blue," we shall find that there is no actual assertion; there is rather an oscillation in the subject's mind as to exactly which of the proposed alternatives is true of the table. The moment I find the table to be red, the other possibilities—'green' and 'blue'—dwindle away, and this cancellation of possibilities may be sought to be expressed in "The table is neither green nor blue," which appears to be a negation. The cancellation would doubtless be so expressed, if the so-called disjunction could represent a factual situation. On the contrary, it is found that there is nothing like disjunction in the sphere of facts, and that is why a disjunction cannot serve as a suggestion, suggestion involving as it does, representation of something to be something or somewhere, which is no bare

possibility. Hence I can reject outright the position that "The table is neither green nor blue" is as a whole an expression of a negation. In "The table is either red or green or blue" there is manifestly an indecision as to the actuality of any one of the alternatives proposed. It cannot, however, be said that there is likewise no decision as to which is to be negated in "The table is neither green nor blue." In reality, both "the table being green," "the table being blue" are rejected, and it may appear that here is a case of negation wherein any previous suggestion is lacking. But it may be retorted that there cannot be in the realm of facts 'neither—nor' any more than 'either—or.' So there can be no simultaneous negations of two contents with reference to a context. Though there are no simultaneous negations, there is yet a sense of simultaneity of the two negations. But this cannot put any formidable difficulty in my way. If we reflect a bit, we shall find that the suggested sense of simultaneity is generated more by the convention of language than by anything else. On scrutiny, the proposition "The table is neither green nor blue" will be found to be conjunctive despite the fact that 'neither—nor' is the negative of 'either—or', and can be analysed out into two distinct negations that are jointly expressed therein, so that behind the unity of the compound proposition there are two negations which are made one after another. We can have them thus: the first negation would be "The table is not green," provided, of course, that the order in the propositions indicates the order of the experiences in question, and the second "The table is not blue." In the actual perception the subject fixes on the definite colour of the table, which is supposedly 'red,' and in the first case he turns from this to the relevant suggestion that proceeds from the reminder of the disjunction he starts with, and makes the negation "The table is not green." So also with the

second case.¹ Whether there should be negations at all or not depends on the interests of the subject concerned—the interests that have a bearing on the situation in question. Whatever the conditions, once there is need for negation, we may get negations one after another, and the temporal gap between them may be microscopic, and they may be expressed jointly in the convenient form of language containing ‘neither—nor.’ In these details, however, I have not lost my main point; I have rather established the position that a suggestion as such in a context of negation cannot be disjunctive and, for that matter, that negation is not eliminative.

Let me now consider the position examined above from another angle of view. I know, for instance, that the railway signal is either red or green or blue. If I say that the signal is not red, this my negation will not provide a case different from what has been considered above. If it is viewed from the standpoint of the hearer some novelty may, however, seem to be there. If I utter what I initially knew of the signal, that would be to him a disjunction pure and simple, and then when I utter “The signal is not red,” this negative proposition² would serve to cancel for him one of the alternatives proposed, so that he would be left with only two, namely, ‘green’ and ‘blue.’ Here first of all we have to note that the hearer can have the disjunction, “The signal is either green or blue,” before him merely from the proposition, “The signal is not red.” As I have already indicated, in this case he may have a disjunction with all the colours as alternatives except “red.” The question of cancellation comes in only in

¹ This should not mislead the reader. The order between suggestion and positive ground has evidently been reversed. But this is only apparent. The order in question only shows how psychologically we pass to the exact situation of a negation, where we proceed always with a suggestion.

² I have used the phrase “negative proposition” for convenience’ sake, but not in the sense of an expression of a judgment.

the event of "The signal is not red" being connected with the proposed disjunction "The signal is either red or green or blue." I can do well to set out the different steps involved in the process of elimination, that is under consideration, as follows: The original disjunction, "The signal is either red or green or blue," taken in one of the forms implied by it, stands as "If the signal is not red, it is either green or blue," in which it is not yet said that the signal is not red; there has nevertheless been laid down a condition that would make for an elimination, and the condition is fulfilled when the statement that the signal is not red is made. I may well set out the details of the situation in the form of an inference which appears like the following: The signal is either red or green or blue; the signal is not red; therefore the signal is either green or blue. If we, however, fix on the second premise, we shall find that the actual negation, presupposing as it does one of the two—"green" and "blue" as the positive ground on the strength of which it is made, not only cancels the original disjunction, but also leaves no room for one, such as we have in the conclusion, in which case no question of elimination can arise at all. Yet from another point of view we may find much in the form of the inference analysed above, that will command our attention as well as agreement. A process of elimination is in sight only on the consideration of a negative proposition taken in conjunction with a relevant disjunction. A negative statement as such does not involve in itself any indication whatsoever of the positive ground on which the negation in question is made,¹ and this gives free play to the imagination of those to whom the proposition is given, as to the possibility of positive ground within a certain limit. So I may say that all that follows from a negative statement

¹ Cf. Bradley, *The Principles of Logic*, Vol. I, p. 125.

is a disjunction in which the exact number of the alternatives will depend upon the relevant experience of those who entertain it. In the instance given above, I begin with a disjunction with a definite number of alternatives, and then I am told that what is proposed as one of the alternatives is negated. Then at once I am left with a disjunction with the remainder of the alternatives. It may now appear that I have got at the proposition which is the conclusion by a process of elimination. But we should not forget that I, in fact, cannot cut between elimination as a process and inference as an act. The proposition, "The signal is either red or green or blue," together with "The signal is not red" obliges me to envisage that the signal is either green or blue. Thus it is clear that elimination is not completed until I arrive at the conclusion in the inference. As a matter of fact, the conclusion is reached only through the dropping of the first alternative by the joint operation of the two premises. The negative proposition taken by itself, far from eliminating the possibility in question, posits it as such in view of the ignorance on the part of the entertainer of the proposition as to the exact positive ground on which the negation is based. From this all that follows is that elimination has taken place, and that as a function of the inference as a process. We cannot, however, be said to know this elimination quite as much as the conclusion. Truly speaking, the elimination comes to us only as an after-thought, being revealed to us only on reflection. All this, however, is not very important; for the point that I am to settle is whether negation is eliminative. I have in my analysis shown with sufficient details that negation proper implies a function contrary to elimination. A negative proposition follows closely the negation which it is to express. The question of elimination can be tacked on to a negative proposition only in a situation wherein it is combined with

a disjunction in which the negated appears as one of the alternatives. It may be argued that a negative proposition may express a negation that is made here and now, and that on the ground of something other than any of the alternatives proposed in the disjunction, and here there is nothing to stand in the way of our taking the negation, not only the negative proposition, as doing away with one of the alternatives proposed. But on close inspection, it will be clear that the negation brings to light by way of implication the undue limitation of the alternatives in the disjunction and shows the necessity of extending the scope of the disjunction in the light of the possibility that issues out of the actuality in the situation in question. And that way we come round to the position that, if the negative proposition in the inference cited above is to be an expression of a negation made at the moment, it can be so only by presupposing one of the alternatives to be actual, precluding the necessity for an inference and, for that matter, the question of elimination.

Further, the knowledge that the signal is coloured is no sufficient ground for the negation "The signal is not red"; for what is colour itself but the colours themselves? If colour or any of the colours except "red" cannot be had as the basis of the negation, it may seem that it is wholly subjectively determined. But those who take negation as a mere subjective play of thought, whatever interest may be behind it, cannot make it intelligible; for there is the persistent "why." Undoubtedly, there may be several possibilities in regard to a fact; but in the process of negating any one of them we do not necessarily think of the rest in a disjunction; for a negation as such is based on two things—a relevant suggestion and a positive ground that directly contradicts the suggestion. Besides, disjunction is possible only in the case of those determinates which are co-ordinate species of a genus or particulars of a

universal. There are, however, instances of negation where-in any disjunction is out of the question.

In an existential negation either there are no articulate alternatives, or there are alternatives which are countless. In the negation "Here there is no snake," what are the disjoined alternatives that are presupposed by the negation? It may be argued that the disjunction on which the negation is based is "Either here there is a snake or here there is no snake." But, in that case, the negation "Here there is no snake," eliminating as it does the alternative—the suggested existence of a snake, annuls the other alternative, namely, the suggested non-existence of a snake; for there is then no such alternative to be affirmed on the cancellation of that mentioned above, showing thereby that the disjunction posited at the back of the negation "Here there is no snake" is not a real disjunction. Indeed, a disjunction may be constructed, such as "Here there is a snake or here there is not-snake." This is possible only if we can take absence of a snake as something objective. But this is, as I have already shown, absurd. If then "not-snake" is not merely verbal, it means an indefinite number of things except the snakes and as such involves a never-ending series which goes straight to destroy the disjunction. Moreover, what we know in the negation "Here there is no snake" is not what might have been, but is what is actually presented contradicting the suggestion of a snake being there.

If negation is purely subjective and nothing more than a confession of our ignorance, what is that thing of which we are ignorant in such negations as "Here there is no snake," "Here there is no light," "The wolf is not eating the lamb," etc.? It is not possible to make out of them a case of ignorance. I have adequately dealt with this point above; so there is every reason why I should repudiate the statement that negation rests on a disjunction and is

eliminative, and, for the matter of that, represents nothing more than a subjective process.

6. It is quite possible to plead for subjectivism in connexion with negation by taking it as mere rejection. But on analysis the theory will be found to rest upon a confusion between the two distinct senses in which the word "rejection" can be used. If we take rejection as an intellectual act there must be on it an objective control remote or proximate. This is sufficiently evidenced in our awareness of a content¹ thwarting our attempt to entertain it, and this control can be articulated as an effect of the content's relation to the context in question or to the experiential world in general. Thus in rejecting a content such as "horse-man," we fix on it and fail to accommodate it in the world as we know it, and this failure on our part is only our awareness of the positive nature of the world repelling it. Or to take the example "The railway signal is not red," there "the railway signal being red" may be said to be rejected. But rejection here is not anything more than our awareness of the content being contradicted by the definite colour the signal possesses. So it is quite clear that, though we may loosely speak of rejection and all that in the situation of negation, yet we cannot have the so-called rejection as an effect of thought, only is subjectively determined.

It may, however, be contended that, as a matter of fact, we often reject, and that in the case of a rejection we do not take into consideration so much as an objective control which can be analysed into a complex situation of a clash between a real and an ideal content. It may be so ; but rejection proper will be found, in the ultimate analysis, to be purely an act of will. It may be that we often pass from an act of will to an act of intellection and also

¹ Here content = meaning.

conversely, but this is another matter. What is for us here to determine is whether we can get a case of negation, in the strict sense of the term, in the situation of an act of will. When, for instance, we deny the existence of God, we may have the denial in either of the two ways; we may reject the suggestion of God's existence on a ground, which will be tantamount to our being aware of the suggestion being contradicted by the nature or constitution of the world as we know it, or we may reject it, because we detest to believe in God. In the latter case rejection is obviously a matter of feeling inasmuch as there we simply give expression to our dislike of God. Thus, when we say "God does not exist," we do not reason, but only refuse to entertain "God." So, "God does not exist" as a rejection is, in reality, an expression of our will not to accept the idea "God" we abhor. Rejection in this sense is undoubtedly subjective and is determined by the caprice and idiosyncrasy of the individual concerned. But there is no genuine negation, and this will be clear on a comparison of such a rejection with what is ordinarily accepted as a case of negation, such as "The Victoria Memorial is not brown." If one seeks to express therein only one's will not to believe that the Victoria Memorial is brown, one may well have one's way. But, in so far as the expression is concerned, there seems to be a departure from the usage; for usually the form "S is not P" does not imply in any way "S should not be P." If we can have this unusual form, there would naturally be no contradiction between, for instance, "The Victoria Memorial is brown" and "The Victoria Memorial is not brown." And, if really there be no contradiction between them, then "The Victoria Memorial is not brown" is not a negation. If it is, on the contrary, a negation proper, we cannot read it merely as a rejection which is an act of will, and, for that matter, subjective.

7. In some quarters, negation is regarded as a function of propositions.¹ It is contended that there is no opposition among the data of perception and that incompatibility is all a matter of conception.² It is undoubtedly true that the sense of incompatibility arises out of our attempt to think of two differents or more as occupying the same status of being. This is, however, not to say that incompatibility lives in concepts merely; for concepts being representations of data of perception will keep out any sense of discrepancy in so far as their respective nature is concerned. There will, therefore, be great difficulty in explaining incompatibility between two propositions in terms of mere concepts. By this, of course, I am not in the least hinting that propositions are indefinable heavenly entities; were they so, we could not possibly have any access to them all. I, for my part, take propositions to mean things much humbler. I should not here rake up the problem regarding the relation between idea or concept and proposition; for it is not very relevant here. Anyway, we are told that a proposition may be true, another false, some incompatible, and, so on, and that there we cannot press a why or how. The theory that I am going to examine sets out a definite relation between the two, 'concept' and 'proposition,' namely, that one is not identical with the other, and that a concept is in reality an element within a proposition. We are thus saved much trouble regarding the point.

To come back to the main point; I can cut short discussion by taking proposition here as an assertible. Let me then see how negation can be read as a function of propositions. We are told that the proposition, "A is black," for instance, is incompatible with the proposition "A is

¹ Johnson's *Logic*, Part I, Chap. I, and Stebbing, *Logic*, Chap. IV.

² *Symbolism and Truth*, p. 201.

white." Here incompatibility may be sought to be explained in two ways ; it may be derived from the concepts used, or it may be taken to arise in view of the characteristics—truth and falsity. To begin with the first, we find that there can hardly be anything like opposition in the concepts, "black" and "white"; for we can well conceive A to be black in one context of time or space or both, and white on another occasion. The propositions, therefore, *qua* proposition can never be found to be discrepant. On the other hand, fixing on truth and falsity, we at once realize that falsity has no bearing on the situation of propositional incompatibility; for, as in the instance given, both the propositions may be false. If we, however, make an approach to them by supposing both of them to be true, opposition between them is obvious. But what is this holding a proposition to be true? In a proposition *qua* proposition, in the sense of an assertible, we need not be in immediate contact with the factual basis that makes it true. In fact, we cannot hold a proposition to be true without having the truth in question within it. But truth can enter a proposition only by modifying it, so much so that it will cease to be a proposition. Truth is, in short, to be found only in the situation of judgment and in judgment. So when we hold a proposition to be true, and if it is actually true, it is a full-fledged judgment. There is, however, another way of getting propositions under the notion of truth; we may *merely* suppose them to be true. But, strictly, such supposal is nothing but the proposition in question; for assertibility stands on a representation of relevant facts. Actual assertion does not occur there, because the proper context is lacking, and the interest or the interests that would goad us towards assertion are wanting. We, therefore, gain nothing in stating that incompatibility between two propositions can arise only through an application of the notion of truth to them.

It may, however, be contended that we can have incompatibility between two propositions as in themselves without taking into consideration their objective counterparts. Thus, if we view the propositions, "A is black" and "A is white," we become, as it is pointed out, immediately conscious of the opposition between them, and it is this sense of opposition that is expressed in a negation. Granted that it is so, we may say that the proposition, "A is black," is not the proposition, "A is white," and this negation is on a par with "A table is not a chair," "Virtue is not square," and so forth. But there we do not say anything more than that they are different. There is, however, a long stage from mere difference to discrepancy; if discrepancy were the soul of difference, the differents could not come to constitute this world we live in. The implication of all this is that negation is not a particular function of propositions, but is an expression of our awareness of the difference of the differents in general.

One may, however, turn again to the concepts themselves used in the propositions under discussion and may point out that the incompatibility of the propositions in fact hinges upon the concepts themselves. But we have not to take much trouble to see that the concepts, "black" and "white" *qua* concept are different and as such not discrepant. This is corroborated by the fact that A can be black now and white in another context at another time, provided, of course, that A admits of change in colour. As a matter of fact, incompatibility arises and is known in the situation of negation. Thus "black" and "white" come to clash only when both of them claim the same status of being; this requires one of them to be factually given, and incompatibility will manifest itself in the suggestion of the other being contradicted. Here we shall do well to remember that incompatibility itself is not the fact of contradiction. All these, however, are details that will

take us far beyond the sphere of propositions, indicating thereby that incompatibility between propositions *qua* proposition is not intelligible. I, therefore, conclude that negation is not all a matter of propositions and a peculiar function between them.

CHAPTER IV

THE STRUCTURE OF NEGATION

1. I should now consider a problem that forces itself on my attention, namely, what is the exact relation between negation and affirmation? On the face of it, a denial may seem to be denial of an existing judgment, and there is no doubt that it is ordinarily taken to be rejection of an affirmation. There are, however, some obvious difficulties in the way of accepting such a theory. The effective way of disposing of the position that negation is denial of affirmation is not to say simply that it is contradicted by fact and theory.¹ It is all very easy to show that the position has been disputed and discarded by some logicians. But that would not help us much; for everyone is at liberty to dispute the contention of his critics. I may appeal to experience and aver that "we have not always judged a matter to be true before we deny it." It may, however, be pointed out that, though not always, at least on some occasions we affirm before we deny, and that this is sufficient for the point to be made. It is in no way important whether we affirm always or sometimes before we deny. What is, on the contrary, of vital concern here is whether affirmation itself enters into the situation of negation as its objective. It is almost a commonplace to say that our knowledge begins with affirmation and negation is a later acquisition.² And it is on this account alone that suggestion of an affirmative relation shows itself to be one of the elements that together make up a negation.³ Suggestion,

¹ Bosanquet, *Logic*, Vol. I, p. 277.

² Cf. Bradley, *Logic*, Vol. I, p. 115.

³ I say elements instead of conditions; for a condition is what contributes to the being of a thing, but is not to be found in the content of it.

whatever it is in itself, involves at any rate an idea which in its turn points back to an experience or experiences in which affirmation functioned. Not only this, but an idea pointing towards the objective world carries with it an expression of the primal urge of thought towards affirmation. Affirmation is then in a legitimate sense the presupposition of negation. This statement, however, does not bring us any nearer to the position that a negation is nothing but denial of an existing affirmation. Truly viewed, the theory is found to be based upon a confusion between what is affirmed and affirmation proper, and it requires a bit of intelligence to separate between the two. Whereas there may be universal agreement on the former being included in negation, opinion will vary on how exactly it functions. There would, however, be no two opinions about the fact that we cannot in the same breath affirm and deny the selfsame content. On the contrary, it can, in no way, be shown to be affiliated to, or an implication of, the position that what is affirmed in a context may be involved in a negation, that a negation is denial of an affirmation. There in the contention that a negation is denial of an affirmation in fact a very simple statement is made, and it is this, that a denial as a process is sometimes directed against an existing affirmation and is complete as an intellectual act in demolishing it. This seems plausible in view of the fact that in our actual experience we sometimes find that an affirmation that has been made is annulled; and the solution of the problem I am considering will depend, in a large measure, on the actual relation between such an annulment of affirmation and negation. The contention that negation is rejection of an affirmation would be amply justified if it were the case that negation is identical with annulment of affirmation. The exponents of any such identification have to show why and how an affirmation that is made is afterwards rejected before they can conclude

that a negation is nothing more than denial of an affirmation; for evidently there is not a free passage from an affirmation to the corresponding negation; a negation, if it is mere denial of an affirmation, does not contain in itself the conditions that contribute towards the destruction of the affirmation it annuls. To gather the gist of the matter, so long as an affirmation stands, there is no sense of a negation of it, and, when it is annulled, and, if a negation arises on this annulment, it can hardly be said that the resultant negation is merely rejection of the affirmation in question. If it is still contended that the negation would be the annulment itself, affirmation and negation would appear to be all a matter of caprice on our part, which will, in the ultimate analysis, take away all significance from them as acts of knowing.

Going to the root of the matter, we find that there is a deep-seated confusion between falsity of a judgment and negation proper. To take a stock example from Indian philosophy, in an illusion I perceive a snake at a place where there is really a piece of rope. So long as the illusion persists, I am aware of a snake being presented, and, on the basis of the presentation, I make the judgment "There is a snake," which is not a mere supposal, but an actual assertion. After a while, when I get out of the illusion on the appearance of the rope as the object of my perception, the presentation of a snake disappears, taking in its trail the preceding affirmation. So, from the point of view of knowledge as such I pass from one judgment to another with reference to the selfsame point, and in this passage I am aware of a judgment being annulled or cancelled by the other. This cancellation of the judgment "There is a snake" constitutes its falsity, and, in so far as this cancellation is concerned, no negation is in sight inasmuch as I am dealing only with two affirmations—one made a moment ago and the other just now, although the materials

that make for a negation are not wanting therein. In the situation a negation can arise on a reflective view of it. And when there is actually a negation like "It is not a snake," we are apt to lose sight of the situation of falsity and to think that in the negation we are simply expressing the falsity of the judgment previously made, getting much too confused to perceive clearly the distinction between the statements, "'This is a snake' is false," and "This is not a snake." What happens there is, in short, this: on the correction of the illusion, the memory of the content perceived still persists, and out of it issues forth the sense of the possibility of the content in question at the point under consideration. A snake might have been or might be there instead of a rope, and when this is viewed along with the actuality of the situation, it is found to maintain itself as a suggestion which is contradicted by what is perceived to be the fact. Hence, though we find that a negation arises on the basis of an affirmation in more than one way, yet it cannot be construed into the denial of the corresponding existing affirmation.

2. I should now turn to the other side of the question, namely, whether affirmation and negation are co-ordinate. I have insisted that every negation must have a locus or positive basis and must, for that matter, involve affirmation, so that we may say that a negation is never without an affirmation. Can we then say conversely that every affirmation involves a negation as a phase of it? It cannot be maintained that affirmation as such includes negation from the very beginning in quite an articulate way, and on this many logicians are agreed. But trouble will come upon us with the construction that affirmation and negation are "in the end"¹ co-ordinate; for everything will be found to possess two aspects, positive and negative. Thus, the

¹ Bradley, *Logic*, Vol. I, p. 125, additional notes 3, 4, *Ibid.*, p. 122.

term "positive" is used by Sigwart to mark ordinary affirmations¹ that are found in the beginning of knowledge, and affirmation is taken by him as the conscious opposite of negation. These distinctions show that negation as an articulate function appears only in the stage of developed knowledge. Negation is, however, sometimes over-estimated; we are often told that in the end negation approaches affirmation, so much so as to become equivalent to it, not implying thereby that the function of negation is eliminated altogether. What is really meant in the above statement is this, that "affirmation and negation alike become double-edged, each involving the other."²

Prima facie, this view seems to be quite tenable, and may command assent from all concerned. It is in fact supported by the consideration that in the world there is hardly anything like an atomic existence; everything is in so far as it is not and is not just in so far as it is.³ Usually not-A is taken to be the opposite of A; but it is contended that not-A is by itself nothing: it can neither be found in experience nor be realized in thought. Let me now begin by considering the thesis in some detail. I should first state that it will not do to forget the distinction between "not A" and "not-A." Though in a certain sense A is not-A, yet we cannot help self-contradiction in saying that A is not-A, the copula "is" being taken there as a sign of identity of the subject and the predicate; for that way we shall be simply implying that anything is nothing. But this is not understandable. So, from this point of view, the affirmation of A does not involve a negation. An approach may, however, be made from another angle, and from the dictum—*determinatio est negatio*. Our knowing process is doubtless selective and proceeds by

¹ *Logic*, Vol. I, p. 119.

² Bosanquet, *Logic*, Vol. I, p. 281.

³ *Ibid.*, p. 122.

fixing upon this or that thing at a time and as such involves abstraction. Thus, when we fix on A, for instance, we undoubtedly abstract it from many other elements around it, say, B. C., etc. But what is this process of abstraction? On analysis, it is not found to be a clear-cut distinct process apart from, and prior to, the act of fixing on the content in question. So we cannot say that we negate in order to affirm. This will be further corroborated by the fact that we cannot limit down the number of the elements from which a content is to be abstracted, and, for that matter, cannot bring them all within the purview of a conscious process. It may be that but for the process of abstraction we could not get a fact as presented, and here the psychological law of relativity, integration, disintegration and all that may be brought in to bear upon the theme. But we should not confuse between the conditions of experiencing a content and the content itself as a presentation. There are admittedly some conditions of a colour being presented. But to have a colour as a presentation is not to know its conditions. We may likewise point out that, though the abstraction in question may be a condition in the absence of which the relevant content as a determinate cannot be known, yet that cannot be brought on the same conscious level as the affirmation which is involved in the act of fixing on. Moreover, even granted that the abstraction is a conscious process, if we are to have a negation here we can have one only on the side of that or those from among which the content in question is selected inasmuch as selecting is equivalent to positing. But in that case there should be at any rate a sense of the positives from which the abstraction is made, and this will lead us to the position that even in the situation under consideration we begin by an affirmation and end by another.

Truly speaking, there is nothing like abstraction in the situation of affirmation apart from, or in addition to,

the process of fixing on. When a fact is given to be determined in thought, it may be that its being depends on many conditions and its relations with other things around it. But in the actual perception of it there is not, nor need be, any least reference to them all. In point of fact, we may find that in entertaining a particular content as given we simply focus our attention on it, though on the fringe of this process there is an awareness of other things as well, which are not equally lit up as there is a gradual " shading forth " of the light of consciousness from the point on which our immediate attention is arrested. So if we view the situation carefully, we shall find that there is after all a vague sense of a unity instead of an articulate one of separation and abstraction, without which we are not in a position to hold that we cannot reach to an affirmation except through the steps involved in a negation.¹ Besides, what is determined in fact may not be determined in knowledge. It is doubtless true that a fact fixed on is a fact among other facts. Our interest of practical life at the moment may make, or more often than not, makes us blind to this or that factual condition or relations, our chief interest being the fact in question. That it is one among many may be an afterthought, but even there all that we get is distinction. Some facts are there presented and presented as distinct. Where is then rejection or negation?

3. It may, however, be contended that in the analysis just made I have ended by crystallizing the whole matter and that I have just come on the very thing insisted on, namely, distinction, which is to be regarded as the soul of logical negation.² " Distinction " can be taken at

¹ *Vide* John Dewey, *The Theory of Inquiry* (Chap. X).

² Bradley, *The Principles of Logic*, Vol. II, T. E. 6, pp. 664-66, Bradley's theory of negation seems after all to be a medley of different theories. Thus, he begins by saying that affirmation and negation are not co-ordinate. Later on he maintains that they are so. He is also found to talk of negation as subjective. He, however, corrects it in some of his additional notes and terminal essays where

least in two senses : it by itself may make the subject-matter of negation proper, or it may be taken to give orientation to the theory that in a negation the suggestion of a content is excluded by the real. Let me first consider whether a case of distinction provides for a negation in which an exclusion is effected on a positive basis. It is contended that mere distinction is nothing¹ and that there must be difference at its basis. It may, indeed, be said that distinction implies difference, in the sense that distinction is grounded on difference, and this is tantamount to saying that only differentials can be known as distinct. There is, however, a position that seems to be rather an extreme, from the point of view of which it is maintained that distinction is all apart from difference and is wholly determined by the relation of otherness, which is in its turn only a generalization from the spatio-temporal relations between things. Even if we separate between otherness and difference, though, as a matter of fact, it is not possible to do so inasmuch as otherness is after all a kind of difference, it will be very difficult to make otherness stand by itself. Undoubtedly but for their positions the things of our sensible experience could not be given. This is not all ; without positions things cannot be. None would be so thorough-going as to say that a thing is nothing more than its position ; for in that case there would be wanting not only the things that are believed to be there, but also the shadows of those that are yet to take shape. Out of mere positions no epistemological chemistry can manufacture things that are real objects of knowledge. The truth, on the contrary,

he takes distinction and, for that matter, difference as the subject-matter of negation, though he still clings to the position that negation involves exclusion by the real. The chief point that comes up for consideration is, therefore, how to get the exclusion in distinction.

¹ *Op. cit.*, T. E. 6, p. 664.

seems to be this, that a position taken by itself is nothing and is in reality carved out of indeterminate space-time, so to speak, by the things themselves in being given. So I maintain that in a sense, instead of being spatio-temporally determined in order to be given, the sensibles must be given to determine their spatio-temporal relations. This is, however, not to say that the sensibles are given without spatio-temporal relations. All that is meant is this, that spatio-temporal relations, and, for that matter, space-time, when taken apart from the concrete situation of their existence, are mere abstractions. All these we get on the side of facts in themselves and in their relationships, and are available to us only on a reflective analysis of the original situation of our experience. Let me now see if what is determined in facts is revealed to us from the very beginning of our knowledge. In other words, should we make any distinction between "distinct" and "different"? Ordinarily we do not make any separation between the two, nor need we make any. There is, however, a stage or state of knowledge at which a separation between them is convenient. In so far as adult experience is concerned, we find that, when we can disengage ourselves from the practical interests of our life, we come on a situation in which we know the distincts more than the differents; for in fact difference is linked up with identity; in knowing differents we have to know identities, this process of knowing involving as it does selection as well as comparison. It may, however, be argued that distinction is very intimately connected with difference and that to know distinction is to know difference. But in this case we have to accept also the corollary that follows, namely, that distinction is difference. If we, however, say that distinction is grounded on difference, it is obvious that one is not the other. It may, however, be asserted that our knowledge of distinction stands by itself and is not to be propped up by that of

difference, and a clear case in support of the thesis may be made out of a situation of two peas of exactly the same colour, shape, size, weight, and known as distinct. There is no doubt that our awareness of the distinction between the two peas does not involve an awareness of any difference in their content, since the sensible qualities which make up their content show no variation whatsoever. But to say this is to reiterate a point I have already exposed, namely, that difference is there only on account of qualities. This will be amply borne out by practice in experience. Fixing on the instance cited above, we find that in spite of exact similarity between the two peas they are not taken as identical, and we do not in fact say that this pea is that pea ; for they are given as two. The two-ness of the two ultimately turns on the spatial positions and temporal relations. But this is far from saying that the two positions divide between them the identity of the selfsame pea. The truth, however, is that a pea to be a pea must be existent and as such occupy a position ; a particular position in its particularity is not nevertheless intrinsic to its being, and this is shown by the fact of change of position which moves, so to speak, with the movement of a thing, and to which a thing clings as its base. Such being the case, we cannot say that, were we aware of a distinction between the said peas, it was solely because of the two positions in their particularity ; for a position, as I have already indicated, is by itself nothing. So I have to conclude that in spite of exact similarity in qualities they are different. It may as well be said that they are found to occupy two positions because they are different. This, however, does not mean that they are first different and then come to occupy their respective positions. Distinction, in short, always points to difference that issues forth out of the very being of the things and hence cannot be reduced to

mere otherness ; for otherness in its turn presupposes difference.

We should keep before mind the distinction between the two statements : that distinction is based upon difference, and that our awareness of distinction involves that of difference. What is expressed in the first is revealed only through a reflective analysis of a situation of distincts, and that has nothing to do with our awareness of distinction. In other words, though distinction, factually considered, hinges upon difference, yet in our knowing it we do not necessarily know the difference that lies behind it. Distinction as in itself represents a much simpler situation than difference. As our knowing process is selective and proceeds under the stress of some interests of life, we fix on this or that at a time, and this points by way of implication to the fact that things must be presented in separation. This separation in presentation presupposes there coexistence and the sense of coexistence is generated by the awareness of spatio-temporal determinations.¹ So we can say that we begin in our experience with a manifold which is articulated at the outset as distincts. But the passage in experience from these distincts to the differents is not a passage from the materials to the structures that are built out of them. Whatever be the actual fact, whether our knowledge begins with distincts or not, this much is certain that, given a case of distinction, there is no need in our awareness of it, in so far as this awareness is concerned, to go beyond it to envisage its intimate link with difference, though, as a matter of fact, it is a symptom of difference. If we get a situation—no matter where we get it—in which we are aware of distincts, we are there left with the relation of distinction which in itself is too simple or primary to admit of any further analysis. Now it is clear that it will

¹ Johnson, *Logic*, Part I, pp. 21-22.

be very difficult to squeeze negation into the situation of distinction, and I can reject outright the position that distinction is the proper content of negation.

4. An approach may, however, be made from another side. The distinction between distinction and difference may be minimized, and difference itself may be taken to constitute the content of negation.¹ But there is amongst other things a confusion between negation as a form of statement and negation as an act of knowing. There may be a negative form of statement which does not in the least represent a negation as a form of knowing, but only points to a positive state of things. Thus, if there is a difference between A and B, for instance, this difference is just a content that is presentable to consciousness, although it is nothing in abstraction from the differents. But difficulties begin when we try to make the most of the negative equivalent of the statement "A is different from B, or rather A and B are different," and make an attempt to reduce all cases of negation to statements of difference.

Let me begin by examining whether difference in itself involves any sort of exclusion. Exclusion may be posited there in view of the fact that difference is, in the ultimate analysis, determined by the respective identities of those that are known as different. So it may be contended that in fixing on the identity of a thing we get exclusion of any other, and that we can have negation even with exclusion in the situation of difference. But there really we must have a choice between two things : either we should accept negation with a significance, or we have to eliminate negation altogether. We can have negation eliminated

1 Cook Wilson, *Statement and Inference*, Vol. I, p. 273. In this connexion readers will do well to consider the "Anyonyabhāva" of the Naiyāyikas. Sometimes Mr. Wilson seems to contradict himself when, like Bradley, he brings in exclusion in the situation of negation, suggesting thereby that negation is based on something more than difference ; this view, however, runs counter to this theory that difference is the proper subject-matter of negation.

altogether as a function in knowing if we seriously maintain that negation is all a matter of language. There may be statements or propositions negative in form, but positive in meaning inasmuch as in those we may give expression to our knowledge or awareness of something positive. Thus "A is not B," for instance,—when we are concerned with the difference between A and B—is equivalent to "A and B are different." But the elimination is not complete until we have done away with the negative statement also; for the negative particle "not" will still be a source of confusion. We may yet be asked: if no significance attaches to negation as such, why do you retain the ghost of it in the form of a negative statement at all? If there is in reality nothing to distinguish between "A is not B" and "A and B are different," we had better discard entirely the negative statement to avoid misconception.

The utility, if there be any, of a negative statement will show that in and through it we seek to express something more than difference. But it will be very difficult to have something within the situation of difference to give significance to the negation we may have recourse to therein. In "A is not B," for instance, where we are concerned with the difference between A and B, both A and B are given, or may be dealt with on the mental plane through the concepts of them. In either case there is a difference between them in so far as the status of their being is concerned; for each of them with its content exists at a point of its own, and there is so far no contention between them. Hence I can safely say that difference by itself cannot present a case for exclusion. This statement is reinforced by the consideration that opposition is generated only "in the movement of differences to occupy the same point or the same status of being." There is, however, no movement of this kind in the differentials factually

considered, and this is far too obvious a truth to be reasoned out. If there is a movement at all therein it is occasioned only through an ideal experiment on a given situation, and movement is perhaps only on the side of what is negated and is strictly ideal. Anyway, in the situation of difference between A and B, for instance, it is doubtless the fact that we often say "A is not B." But this represents only half of the truth; for we might as well say "B is not A." In the actualities of the situation, however, neither of them is more ideal than the other, and as such there is scarcely a movement in them in any sense to occupy the same point. If exclusion is still insisted on, the situation of difference between A and B, for instance, is resolved on analysis into a pair of negations, such as "A is not B" and "B is not A," and if difference is made a matter of exclusion, there will be at any rate two differences, namely, A's difference from B and B's difference from A. I may then ask: Is A's difference from B, or B's difference from A anything over and above the difference between A and B? If it is so, the term "difference" is evidently taken in two senses; in one case exclusion on the basis of identity is the major function, whereas in the other exclusion is not in evidence; for there A and B are given together with the difference between them. The truth, however, seems to be that exclusion has nothing to do with difference. The primary condition of exclusion is the possibility of the excluded, and an expectation of a thing at a place where there is no possibility of its being there, shows itself to be an idle play of thought which cannot have even an air of significance about it. Thus, a table is a table, and a chair is a chair. "A table is not a chair" would be significant if there could be the possibility of a table being a chair. As we cannot have any such suggestion—a suggestion which is not significant is no suggestion—any exclusion of it is not only otiose, but also unthinkable.

It may, however, be contended that difference is to be understood only in terms of absence, which is objective and which as such precludes anything like exclusion much talked of in connexion with negation. From this point of view, difference may be made a case of a kind of absence, that is often taken as mutual non-existence. Taking for argument's sake that non-existence or absence is an objective fact that can be perceived, let us see what can be brought out by an analysis. The absence of a thing from a place admittedly means its non-existence there. I need not here bring in the difficulties that stand in the way of applying the term "non-existence" in the same sense in the case of the lack of a quality. It will be sufficient here to consider any case of difference. For instance, the fabled wolf and the lamb are different, but is it that in knowing them as different we know the non-existence of one in the other? If so, it does not in the least mean that one is non-existent at the very point where the other exists. Were it so, there would have been much simplification of the situation under consideration. In any event, the wolf in relation to the lamb, and the lamb in relation to the wolf would in that case lose all relevancy, and, for that reason, mutual non-existence would be out of the question. On the other hand, the point that is urged is that one of them—the wolf and the lamb—involves the non-existence of the other. Strictly, however, the non-existence of one thing in another is not significant inasmuch as the non-existence of a thing at a place presupposes its previous presence or the possibility of its presence there. If the presence of a thing in any other thing is intelligible at all, it would be realized only by annulling altogether the nature of the thing in which another thing is said to be present, thus showing the absurdity of the conception of the presence of one thing in another. One may indeed stagger at my stupidity and say unto me with a shrug of shoulders, "Why, you

can well have the presence of "the dog in the manger." But the point that we should not miss here is this, that, though a dog can be in a manger, yet it cannot be said that the doghood is in the manger-hood. Far from being baffled by the example cited, I may extend its analogy to many other cases. Even in the example I begin with, we may take the wolf as being in the lamb, or not being in the lamb; on the other hand, we may take the lamb as being in the lap of the wolf or not being so. We may well get a tiger on a tree or not get it there, and so on, and so forth. But in all these what do we gain? Whatever our gains, we do not at any rate get what is precisely intended by the contention that in the situation of difference—limiting the differents down to two for convenience' sake—we get nothing more than mere mutual non-existence; for the examples urged against me illustrate only that differents can come to be in a relation without ceasing to be different, or that a thing can be absent from a place. But the theory that I am examining will take me far beyond all this. It is maintained that in the situation of difference we simply note mutual non-existence, in the sense that the wolf in the instance cited above when fixed on as a content with its identity shows forth the on-existencen of the lamb in it, and the lamb as a content functions likewise in relation to the wolf. The difficulties of the conception of absence in its application to the cases under consideration apart, in order to realize the absence of one in the other, we must have at least the respective identities of the two before mind; otherwise there will be mere absence; but in that case absence or non-existence will fail to contribute towards the content 'difference' inasmuch as mutual non-existence will not be in view. So, for the sake of the mutuality of non-existence at least the respective identities of the non-existent and that the content of which is covered by the non-existence of the non-existent must be brought forth

simultaneously or one after the other. But in that case we are putting the cart before the horse ; we get difference there prior to non-existence as the factual conditions on which difference hinges are given. Hence I conclude that difference, far from being a result of mutual non-existence, is its necessary presupposition.

Moreover, I need not go far to show the absurdity of the conception of mutual non-existence which has an air of plausibility about it only in the case of *some* differentials. We can in this connexion profitably consider such three negations as " Mr. Smith is not in this room," " This table is not brown," and " This table is not a chair."¹ In the first instance we get the absence of Mr. Smith at a place, in the second the absence of the colour " brown " in the table, and in the third the absence of chair in the table. I have had already occasion to deal with the first and the second in some detail. So I can go straight to the third where I have to consider how we can squeeze in the conception of absence between the two terms employed therein. In " The table is not a chair " we have neither absence of a thing at a point or place, nor absence of a quality in the thing to which it may attach. In " Mr. Smith is not in this room " the room in question *qua* room is not affected by the presence or absence of Smith therein, whereas in " This table is not brown " the presence as well as the absence of the colour " brown " has much to do with the determination of the table in fact, and, for that matter, in thought. But it is clear that here the colour " brown " in its presence or absence does not adversely affect the table *qua* table. There is, however, a marked difference between " This table is not a chair " and the instances just considered. As has already been indicated, the presence of chair in the table, in the sense intended by those who insist

¹ This last instance represents no significant negation. It is cited here only for argument's sake.

on mutual non-existence as being the content of negation, will affect the nature of the table *qua* table, so much so as to destroy altogether the identity of one or the other. As we cannot represent the absence of chair in the table on the analogy of the absence of the colour "brown" in the table, the only alternative way left open is to conceive them as discrepant, and they appear to be so when we attempt to think of one as the other. But obviously this is far less or far more than the absence of one in the other, absence being taken to be objective and factual. The truth is that everything is given with its identity and individuality and that things given as such are known at once as different. Difference, however, is not restricted to classes of things and beings, but is also extended to individuals of the same class; for there we are concerned more with the traits of the individuals *qua* individual than with the class-characteristics that bind them together. I can, therefore, conclude that, though we fix on some identities in the situation of difference, yet we do not get difference by way of the exclusion of one by, or the absence of one in, the other; for difference is nothing more or less than the presentation of the respective identities of the things given in relation to one another. I can then assert that difference as such cannot in any way lean on a process of rejection or on absence of any kind taken as objective. This being the case, I can also discard the position that affirmation and negation are co-ordinate, in the sense that we negate in order to affirm as much as we affirm in order to negate; for in affirming we simply fix on the identity of a thing or those of some things, and no process of exclusion as an articulate act of thought need enter there, and this indicates that negation is not only more reflective, but also far more complex than affirmation.

To return to the theme I was discussing. If a negation is concerned with difference only, we can well have a

negative form of statement ; there will nevertheless be no negation as a significant act of thought. Thus, we may get " Sweet is not bitter," " A tram is not a motor car," " Virtue is not an elephant," and so on. But these will be found on analysis to be mere tautologies. The first sentence means that sweet is sweet and bitter is bitter, the second that a tram is a tram and a motor car is a motor car, and the third that virtue is virtue and an elephant is an elephant. All this shows that we fix on the identities of the things in question and know them as different. In order to communicate this state of things we have recourse to expressions that are not admittedly happy, though they have their utility in emphasizing what we intend to assert in the affirmations they express. Besides, there will be difficulties in bringing all negations under this one head. Thus, it will not do to say that in " Mr. Smith is not in this room " we are here simply having an apprehension of two positive realities as different from one another. The difference which is taken to be peculiar to the situation of the negation is also met with in connexion with the corresponding affirmation. When Mr. Smith is present in a room, we have the affirmation " Mr. Smith is in this room," and we do not, as a matter of fact, get the identity of Smith coalescing with that of the room. The difference between him and the room *qua* room is presented all the same. But we cannot have the negation " Mr. Smith is not in this room " express the difference. Taking a further example, such as " This table is not brown," if it is contended that in this negation we simply note the difference between the colour " brown " and the definite colour that is there in the table at the moment, there would be a divergence between what we know actually in the situation and what is expressed in the negative statement. In the negation " This table is not brown." for instance, we come on a definite colour, say, ' red.' in the table, and there is obviously

a difference between 'red' and 'brown.' If the negation is to be read as an apprehension of the difference between 'red' and 'brown,' that will evidently leave unexplained why the term 'table' is dragged into the statement itself, whereas the term 'red' that is so very relevant is dropped out. If we, however, overlook the importance of the term 'table' here and draw out what is meant to be understood, the negation would be reduced to "Red is not brown," or "Brown is not red." Now it is abundantly clear that we can well have this negation in abstraction from any factual context, though the representation of 'red' *qua* 'red' and 'brown' *qua* 'brown' presupposes occasions on which contact with some relevant objective contents was actually made. We are thus carried from a negation that is supposed to deal with a given factual situation to the sphere of ideality where we can play with concepts. But the long stage that separates the two shows the absurdity of the reduction of the negation "This table is not brown" to "Red is not brown." If we, on the other hand, retain the term 'table' and also 'this table' and recognize their use in the sentence "This table is not brown," as a negation professedly expresses difference, in the negation "This table is not brown" we express the apprehension of the difference between the table and the colour "brown." Then it seems that in the situation in question there are in fact two negations, and either there is no connection between the two, or the connection between the two, if there be any, would be by way of one symbolizing the other. But the difficulty is how to pass in thought from the difference between 'red' and 'brown' to the difference between the table and 'brown', and *vice versa*. Strictly the two differences are not things of different orders, but are simply difference. So the symbolizing of one by the other is out of the question; for ordinarily a symbol and that which it symbolizes do not belong to the same order of being. Hence

the negation "Red is not brown" cannot by itself lead to "This table is not brown." If we negate in the first and confine ourselves to the second and there insist on the difference between 'table' and 'brown,' we can have as the expression of this difference the negation, "A table is not brown"; we do have "A table is not brown" only at the conceptual level, but a concept is not equivalent to a percept. 'This' in spite of this-ness that can be or is conceptualized, indicates our contact with a context. So in the situation of "This table is not brown" the colour 'brown' is not given quite in the same manner as the table that is characterized as this, but is just an idea. And I can further complicate the matter by asking whether here we are noting the difference between the concept "brown" and the percept denoted by "this table." We shall be lacking in true psychological insight to say that in fact we do so; for, whatever other things we may say regarding them, we cannot certainly say that in any act of knowing we are knowing and at the same time reflecting on the act. Even allowing that it is so, the difficulty will not be got over, but will be only shifted to another point, from which we shall have to regard negation as an expression of our reflective awareness of an act of knowledge that involves differentials. But in that case negation will appear to be the monopoly of logicians and psychologists who have reflection or reflective analysis as the chief instrument in their investigation. But this will outrage our common-sense point of view. Common men not unlike psychologists and logicians, as a matter of fact, make negations in their work-a-day life without the conscious grasp of the difference between the ideal *qua* ideal and the factual. Hence, to accept the position that negation is concerned with difference and expresses our apprehension of difference only is to invite difficulties which we are hard put to it to overcome, and this shows beyond doubt that the position, far from

explaining the negations that are ordinarily found to function in our experience, does violence to them. So I can assert that the truth of the matter lies elsewhere.

5. In the course of the foregoing analysis I have indicated that negation, though subjective as a mental happening, is as an act of knowing based upon an objective context that is factual, and, for that matter, involves affirmation. I have also made it clear why absence or non-existence of a thing cannot be posited as something objective in the realm of facts. One of the elements, or rather the major element that enters into the situation of negation and the lack of which nullifies all significant negations, has been found to be nothing but a relevant suggestion. My adversaries may, however, make it a base wherefrom to launch a fresh attack. It is up to me then to clarify the precise sense in which 'suggestion' is to be taken.

I may begin by saying that a suggestion that is required in a negation is more than a mere idea, though it is found to involve an idea. What can be adduced as a reason for all this is that an idea as such is reference to the relevant objective context, with no indication whatsoever as to the where and when thereof. So the reference in question is indefinite in so far as the spatio-temporal determination of the content under consideration is concerned. It will, therefore, be futile to make an attempt to explain a negation simply by an idea *qua* idea inasmuch as an idea as an indefinite reference is privileged to drift about in a zone which is neutral to both affirmation and negation. Either of these can draw it to its side only when the neutrality of the zone is disturbed, and this disturbance takes place only when an idea moves towards definiteness in fixing on a particular context in which the content in question may be determinately given. In other words, an idea comes within the purview of affirmation

or negation by allowing itself to be an instrument in the attempt to affirm. The whole thing will, in the ultimate analysis, turn on this mid-point between mere idea and affirmation, and this mid-point is what I have called suggestion. There are, however, two distinct sides, or rather two distinct kinds of it according as it is factually determined or subjectively manufactured. In the situation of negation we are concerned with suggestion of the second kind. I have to show that, though what is ultimately negated is not an existing affirmation, yet it cannot be said that we are there concerned with a mere idea. I shall make it clear by the help of a concrete illustration. Let me take, for instance, the negation "This table is not brown" and try to bring out of it the suggestion which is to be distinguished from the affirmation "This table is brown" on the one hand and from the idea 'brown,' or 'table-brown' or 'this-table-brown' on the other. The distinction between affirmation and suggestion can be easily shown by pointing out that, though what is denied may be or might have been affirmed, yet a negation as such does not in any way refer back to any affirmation of what is negated. But this is only a negative characteristic. The positive aspect of suggestion will be brought to light when we consider its relation to the idea it involves. In the example of negation cited above, I may ask, what is the idea that functions? Is it merely 'brown,' 'table-brown' or 'this-table-brown'? To begin with the last, it is found that representation of this-ness or this-nature which consists in the identity that persists in all "thises," is the fact because of which a thing is characterized as this; 'this' nevertheless carries with it the sense of givenness and is always to be found in an objective situation. So "this-table" is never realized as a mere idea and is always to be found as a datum of experience, though doubtless we can conceive 'a this' inasmuch as

there is a good deal of difference between 'this' and 'a this.' In the datum itself we have first the table in question as this, and then the this is further elaborated as table. Hence "this table" cannot be taken as a mere idea. It is rather to be taken as a datum that is idealized and is given to be entertained by the percipient or the subject concerned, and this is tantamount to saying that "this table" is a suggestion that is presented through the collaboration of an idea and a fact. What is found to be true of 'this,' 'this table,' is also true of 'this-table-brown.' I have not to go far to show that there is an idea corresponding to the colour "brown." But the point that has to be considered is whether this idea by itself is sufficient for the purpose of the negation "This table is not brown." If the table in question is actually perceived, it is perceived with a definite colour, and even in the event of the presence there of a contrary of brown, there would be no room for any negation in spite of the fact that we do have there the idea "brown." The minimum that is required for the negation to be made is the taking of the idea "brown" with reference to the table itself. The negation, in short, presupposes directing of the idea to the table, and it must be obvious by now that this directing must be something more than a mere idea. It may, however, be argued that at this stage we can well have "table-brown" as the requisite idea. But if we keep before us clearly the fundamental nature of idea as such, we shall find that the idea "table-brown" does not fare better than the idea "brown"; for there would manifestly be no opposition between the perception of the table in question with a colour and having the idea "table-brown" inasmuch as in so far as the idea goes there is no indication whatsoever as to which particular table in its particularity is meant. The idea "table-brown" will have relevancy here only when a direction to what is fixed on as this in the situation of the negation is introduced into it; that is to

say, the idea will function there only by lending itself to a manipulation by an intellectual process that exceeds the bounds of mere ideality. The idea in short will be the foundation upon which the structure of what I call suggestion is built. So I can say that an idea is less than suggestion and that a suggestion is more than a mere idea. It may indeed be asked: What is the actual suggestion that precedes the negation "This table is not brown"? As has already been indicated, "this," "this-table" or "this-table-brown" is, to be a datum of experience, idealized and as such becomes content of a secondary apprehension¹ which can be named, for want of a better word, suggestion from the side of the objective. It can be said that in a sense a suggestion is the suggested and that the suggested is not merely thought of, but also perceived. All this is another matter.

Suggestion, however, as I speak of it in connexion with negation, stands at a different level from that just referred to. A suggestion in the situation of a negation proceeds comparatively from the side of the subject himself, though it is not all a matter of subjectivity; for there is a pointing towards fact. To avoid confusion, I should make the point still more precise by saying that, whereas reference in an idea is indefinite, in the sense that it is not confined to any particular point of space or time except, of course, in the cases of those singular ideas which refer to the relevant facts that are not known to change their positions either from the point of view of the objective world or from the view-point of experience *qua* experience, the reference of a suggestion is definite inasmuch as an actual factual

¹ I take simple apprehension to represent the most primary stage of our knowledge wherein we are only aware of the existence of facts without any articulate thought-function to deal with them, and secondary apprehension that aspect of our adult knowledge, judgmental in character, where an objective fact is given as being idealized, thus forming the basis upon which judgment is made.

situation it points to is mentally fixed on either through the memory of a past perception or through the statement of the speaker at the moment, and it is this that transforms an idea into a suggestion. So we have to make a clear distinction between an idea and a suggestion. But there we are only half way between idea and judgment. Sigwart's phrasing it as an attempted affirmation is very significant. The word "attempted" is, however, misleading; for it may make us think that an attempt at affirmation is actually made. If we in fact assume an attempt to be there we shall be presently led up into some difficulties the chief among which is this: granted that the full conditions for an affirmation are given within the idea itself which is employed, though in point of fact we cannot pass from a mere idea to fact, we have to show why we stop short, or what it is by which we are thwarted in our attempt to affirm. Either the conditions that may induce an attempt to affirm are lacking or the conditions are there. If they are lacking there can be no attempt towards affirmation, and consequently we fail to read suggestion as attempted affirmation. If, on the contrary, the conditions are available, there is no reason whatsoever why there should not occur forthwith a full-fledged affirmation. So, if an attempt is there occasioned, it must of necessity succeed; if, on the other hand, we speak of any failure of an attempt towards affirmation, that only shows that no attempt is actually made.

It may, however, be contended that there can be no question of any failure of an attempt towards affirmation; for there we simply persist in our attempt. There is undoubtedly an attempt, but that is made only towards getting at the exact factual situation where an affirmation will take place, an affirmation which will be found to be something other than the suggestion that works there and also induced by the suggestion itself. Thus

in the negation "This table is not brown," for instance, the suggestion that works there is "the table is brown," or rather, "the table being brown," the "the" indicating the definiteness of the table, which may be expressed by the statement that the table in question is already known to the speaker as well as to the hearer, or that the hearer is made to think of a definite table by the statement of the speaker. Not that every suggestion in the case of a negation presupposes a speaker. The suggestion in question may proceed from the subject himself, who subsequently negates it, under the stress of some interest of life. The point that we have to bear in mind is this: "the table" here does not express a mere idea; for to have the idea "table" in mind is not to think of this or that table. On the contrary, we cannot take it as the content of an actual judgment; for the factual basis of the judgment which is to affirm the being of the table in question or its characteristics in a context is lacking. The most that we get here is only an approach towards the fact through testimony. Judgment as a form of knowledge is immediate and as such precludes any sort of mediation. "Suggestion" is not nevertheless pure imagination. There is, of course, no denying that imagination has a large part to play in a suggestion. But we should be slow to make much of it, especially in view of the fact that there it functions under some strict limitation imposed by the context in question in which it is, as a matter of fact, anchored. So there is a good deal of difference between imagining a table or a table being brown and imagining a table in a context known to the subject who imagines. Now it can be seen that in the suggestion "The table being brown" the "the" denotes the context to which the idea "table being brown," or simply "table-brown" is directed. It may be pointed out that I am explaining direction of idea in terms of imagination and at the same time distinguishing

between this direction and imagination. There would doubtless be a vicious circle if it were the case that there were in fact two distinct processes in what I call a suggestion, namely, direction of an idea and an imagination. Truly speaking, there they are one in spite of the difference of the words in which they are expressed. The word 'imagination,' however, here appears to be more helpful in consideration of the fact that suggestion as such is less than an attempted judgment. Imagination is more or less a play of ideas, although it is always determined by the subject's whims or hobbies. So it is clear that imagination as such cannot be brought within the purview of judgment that always takes place through a contact with an objective situation.

It may now be retorted that, on my own showing, imagination in a suggestion functions under the restriction imposed by the context known to the subject who has the suggestion and as such will be somewhat different from what is ordinarily called imagination, and that imagination can well be taken as an attempt towards judgment. I have already shown the futility of such a conception in some detail. Here the least that I can say is that a factual situation that is simply imagined fails to induce us to entertain it in any affirmative way; for affirmation in an articulate sense takes place only under constraint exercised by facts given in perception. So, in a suggestion as in itself, an attempt to make a judgment is clearly out of the question. That is why one should prefer Bradley's terminology—"a suggestion of an affirmative relation." But strictly the phrase does not mean anything more than that a suggestion is a suggestion of an affirmative relation, indicating thereby that a suggestion is not itself an affirmative relation. This seems to be so in view of the fact that an affirmative relation is there in the objective world, of which relation we can be conscious. But the

phrase cited above does not reveal any thing as to the exact nature of suggestion in contradistinction from idea. The point, therefore, that calls for consideration is whether a suggestion is altogether equivalent to an awareness of an affirmative relation. As a matter of fact, we can be conscious of an affirmative relation in more than one way. In what I have called suggestion from the side of the objective, or rather an objective suggestion, an affirmative relation can be given all at once before it is entertained in a form of knowledge, which is secondary apprehension. Thus, in "This tree is green" we are conscious of the affirmative relation between "this tree" and "green." But the awareness of the affirmative relation there is a secondary apprehension—the immediate basis of the judgment "This tree is green," and as such has no direct bearing upon a negation *qua* negation. Further, within an idea which is comparatively complex we can be conscious of an affirmative relation that is first apprehended in an objective context. In "a-wolf-eating-a-lamb" representation of the affirmative relation between the facts meant by the two elements—a wolf and a lamb—constitutes the texture of the idea. But, as I have already pointed out, an idea as a mere idea falls far short of a suggestion. Hence it will not do to say that a suggestion is nothing but a sense of an affirmative relation. A suggestion is definitely more than that, and we can best understand it if we take it as direction of an idea to a context known to the subject who negates. The direction as a process is subjectively determined, though, in point of fact, the factual has a remote bearing there inasmuch as possibility which, in the ultimate analysis, hinges on actuality, is one of the major conditions that make for a suggestion.

6. The notion of possibility, however, may seem to lend support to the position that a suggestion is a problematic affirmation. Though the question of the problematic

lands us in the difficulties of modality, yet I cannot discuss, nor is it necessary to discuss modality in detail ; I shall only indicate very briefly my attitude towards probability. Strictly, the notion of possibility, that is made use of in connexion with suggestion is different from that of probability, and this is vaguely implied by the fact that a suggestion presupposes the possibility of what is negated, so that in spite of negation the negated persists as a possibility. On the contrary, the probable ceases to be probable on being affirmed or denied. When in the case of the suggestion, for instance, " the table being brown " we contend that the suggestion itself proceeds from the possibility of the colour ' brown ' in the table, we may take it as the implication of the fact that a table must have a colour, which in its turn depends on articulate perceptual experiences. In the nature of the table itself and in colour as such there is nothing to show that one definite colour is more likely to attach to the table than another colour. So we cannot make an attempt to elaborate a scheme of probability regarding the relation of the colours to the table in question ; for the question of probability arises only when we fail to collect the full data that would justify us in reaching out to some fact or facts that are not immediately given. Possibility in the situation of suggestion means merely that the fact in question, though not actual here and now, is capable of being actual, and this capability of the possible is nothing but the relevant actual fact taken in its ideal extension. There is undoubtedly retrospection ; there may nevertheless be no reference to a definite concrete situation, a general view of the past experiential contexts being sufficient. Thus, in the case of the table, the possibility of the colour " brown " therein does not necessarily presuppose any our actual perception of it all there. All that is required there is that we should have perceived a table with a colour. In so far as the

actual perception is concerned one definite colour other than 'brown' is given; but the transition from the actuality to the possibility of the colour in question in a context is effected through an ideation that eliminates strict reference to the exact point of space and of time at which the colour in question is given, although, in point of fact, the ideation involves through imagination an extension of the presentational aspect of the context in question.

From what has just been said, it may seem that one may begin with one definite colour given and pass on to the possibility of any other colour entirely through a conceptual analysis without any reference whatsoever to relevant experiential contexts. But the chief difficulty is that in point of fact there is no *a priori* determination of what the word 'colour' signifies. Not that we first have a clear-cut concept prior to any experience and then come across its factual counterparts one after another or all together. On the contrary, the truth is that a concept is formed within consciousness through abstraction from the relevant contexts that are given in experience. It may nevertheless be maintained that the number of the facts that are actually meant by an idea or concept is not necessarily definite, and that it may well be that from some given in experience the rest are construed as possibilities. In many cases it is doubtless so. But the point that we should bear in mind is that possibility that we are discussing is not so much the possibility of a fact *qua* fact as the possibility of a fact's being in a definite context. When we say that the colour "brown" is possible in the table in question, all that is meant is that the colour "brown," though not asserted of that table, is thought of with reference to the table, and any such thinking is nothing more than extending ideally a perceptual context of 'brown' beyond the actual perception.

It may appear that possibility is nothing beyond mere ideality. One may go even a step further to maintain that the question of possibility is after all quite that of idea. But it will be seen on analysis that an ideal abstraction and an ideal extension cannot be identified, though there is no denying that an ideal extension involves abstraction. Thus in the instance cited above, from an actual perception of a table being brown we pass on through an abstraction to the conception that a table can be brown, which refers to the content of the perception loosened from the particularity of the given situation. There is no problem of possibility in so far as the idea 'brown' itself is concerned inasmuch as there is a fixity as to the context referred to, the idea being retrospection in relation to the past experiential context or contexts from which it takes its rise, and the idea *qua* idea is representation of a universal as in itself. The question of possibility arises here because of the fact that the brown tables are not the only tables in the world. It is, in short, relevant to the situation where a table, for instance, is of any other definite colour. Though there is no bar to a table's being brown so far as the nature of table as such and that of "brown" as such is concerned, yet the possibility of "brown" in a table demands that the colour in question is not actual there. What, then, it may be asked, is exactly meant when we say that the colour "brown" is possible in a table? In a way, possibility emerges through a function of thought with the aid of a relevant idea which represents what is regarded as possible. The possibility of "brown" may be then taken to consist in extending ideally an actual situation of the fact corresponding to the idea to the point where the possibility is posited.

Against the contention that possibility in the situation of a suggestion is posited through an ideal extension of some perceptual contexts taken in their general aspect,

or in their particularity, it may be urged that it may not always be that the extension is effected from a context or contexts in which what is taken as possible is actually perceived. Thus, in the instance cited above, one may pass from the actuality of the colour, say 'black' to the possibility of 'brown,' though there 'brown' is never experienced. One will, therefore, gain nothing by the statement that any definite colour being actual in a context raises the possibility of the colour in another context. There are manifestly many facts found in experience that will give the lie to the above assertion. For instance, we find that milk is white; but no one would think of the possibility of any other colour in milk. Before we can accept the position that possibility does not necessarily hinge on an ideal extension of the perception of what is verily regarded as the context in question, we have to consider the conditions that make for possibility.

We have just seen that milk *qua* milk is of a definite colour, and there being no variation in the colour in it, the possibility of any other colour there is out of the question. The Victoria Memorial cannot change its place and cannot, on that account, be conceived to be in north Calcutta, south Calcutta, and so forth, at different times. If it could, we would very easily think of the various positions as possibilities one against another. In short, possibility presupposes alternative ways of qualitative or other determinations. Thus the presence of Mr. Smith in a room is possible, and this because of the fact that he is not chained down to a particular position. The point, however, that calls attention is : how far such alternation as indicated above has a direct bearing on the determination of possibility. The determinations of colour, for instance, are such that one being actual at a point the rest are repelled from it. One definite colour being actual will turn the rest into possibilities

at the moment. But here we have to exercise caution ; for the mutual relations between the definite colours have nothing to do with the possibility of any of them there, and this is amply illustrated in the case of milk where we get only ' white ' as actual, but are not in any way inclined to entertain any other colour there even as a possibility. It ought to be clear that change or alteration is a condition of the possibility of a thing at a place, of a quality in a thing, and so forth. But possibility itself is something more than change or alteration. The former is, as has been indicated above, a characterization of a fact, that corresponds to a mental attitude which in its turn consists in an ideal extension of the relevant actual fact. In other words, possibility consists in taking up at the level of ideality an actual fact which allows in its scope change or alteration in the determinations of it. Probability, on the other hand, arises in the situation where we are not in possession of full facts wherewith to justify our assertion of a fact which is not given in immediate perceptual experience.

It may, nevertheless, be contended that, though possibility, as I have enunciated it, is to be distinguished from probability, yet suggestion which is one of the major elements in the situation of negation, seems to be but a statement of probability itself. Thus, when the colour " brown " is possible, as we say, of a table, all that is meant is that the table may be brown. If we can so interpret suggestion, we can easily accept what is implied in the contention. But the difficulty is that " may," when narrowly examined, passes into " may not " in which a negation is foreshadowed, and suggestion interpreted in such a way will defeat its purpose ; for a suggestion without an affirmative relation directed to a definite point would prove futile, in which case negation has to be explained only by a reference to conditions and elements that are strictly objective. This is, as has already been seen,

absurd. The position seems to be plausible in view of the fact that in the suggestion itself in a negation we do not in fact affirm the suggested to be real then and there. But there may be found reason enough to reject the statement—what is not asserted to be real here and now or in any definite context is only probable. For clarity's sake I have to repeat what I have already said of suggestion in general. The point that I should first emphasize is this that, whereas the determination of probability depends on some objective conditions, in the case of suggestion we are not *immediately* obliged by anything objective; so in a context of negation we cannot have suggestion* as a consequence following upon some facts that can be regarded as its legitimate ground. And this feature of suggestion alone can reveal the unbridgeable gulf between it and probability. I may, however, get to details with a view to marking them off distinctly. From the cloudy sky, for instance, I assert that it may rain this evening, and clearly it is a case of probability. But it would be absurd to say that 'rain this evening' is here only suggested. Here the application of the word 'suggestion' not only goes against usage, but also does involve us in great difficulties. The word 'suggestion' implies that our mind is neutral in relation to the content in question; for in so far as the suggestion is concerned, we keep our mind open and do not yet take decision this way or that; that is to say, the content in question is neither affirmed nor denied nor doubted. It is doubtless true that these characteristics are shared by probability also. The difference between the two is, however, to be found in the fact that probability is at least one degree more complex than suggestion, in the sense that there is a step on towards affirmation, while in suggestion we are left with an idea with its direction to a

* Here 'suggestion' is not to be confused with meaning or implication.

context which is not sensibly given. In the situation of probability we stand on facts that invoke in us an attitude of anticipation which is foreign to that of suggestion where any justifying ground is lacking, none in fact are needed ; for there we simply imagine a fact to be at the place in question, or with a qualitative or other determination. But one should not go away with the idea that suggestion is all a matter of imagination. That it is not so will be clear if we consider carefully the distinction between what is imagined to be and where it is imagined to be, and the distinction between what is imagined to be so-and-so, and the so-and-so that is imagined. Evidently the locus of the imagined, though not actually perceived at the moment, is taken in some way as a fact, and it is this that prevents suggestion from lapsing into a mere idea, or into pure imagination, and this together with the fact that imagination is involved therein marks off the situation of suggestion from that of probability.

7. (i) I have contended that a negation is but our awareness of a suggestion being contradicted by the locus in question. I may now be pertinently asked : Is negation perceptual or non-perceptual ? My opinion regarding this point has already been indicated. I should, however, for clarity's sake, attempt a systematic presentation of my point of view. It ought to be clear from what I have said in the course of the discussion that the locus is, as a matter of fact, perceived. I could regard negation as purely perceptual if negation were nothing more than the perception of the locus itself. There is indeed point in the contention that negation is non-perceptual in view of the fact that the contradiction of a suggestion, which can be regarded as the essence of negation, is not strictly a matter of sense-perception. The difficulty, however, is that it is not possible to separate the two—perception of the locus and non-perceptual awareness of its contradicting the suggestion in question.

It may, of course, be said that the contradiction follows upon the perception of the locus; it cannot yet be shown that we leave behind the said perception to become conscious of the contradiction. On the contrary, the truth is that the perception must be brought in to bear upon our being aware of the contradiction inasmuch as negation consists in our being conscious of a suggestion being contradicted by the locus of the relevant perception. If the locus and its perception are left out of account in the situation of a negation, the contradiction would hang in a vacuum, or rather the contradiction would itself be lacking. And with it all negation would go to the wall. To do full justice to the situation of a negation, we have to combine the two—perception of the locus and non-perceptual awareness of the suggestion employed, and say that negation as a form of knowledge is complex, so much so as to involve features of two distinct kinds—perceptual and non-perceptual, any one of which taken by itself is an abstraction. It may then be asserted that negation represents non-perceptual awareness of a suggestion being contradicted by the locus that is perceived.

One is, however, apt to think that in the context of a negation there are two things—perception of the locus and the locus itself and may contend that the perception *qua* perception can well be taken as what contradicts the suggestion. But in reality there is no incompatibility between a perception as in itself and suggestion, even if it is possible to abstract perception from the perceived. The opposition that we have to counter in the case of a negation proceeds from the content of the locus presented and that of the suggested with reference to the former, and this implies that in our being aware of the opposition the locus is perceived. So the basis of a negation is the perceived and not a mere perception which, as abstracted from the perceived, is nothing.

(ii) I have already discarded the theory that absence is objective, in the sense in which the positive facts are so. How is it then, it may be asked, that in the situation of a negation it seems that we perceive such a fact as absence? I am not alone in the opinion that there is here a confusion between the perception of the locus and the so-called perception of the absence of the fact in question. I have made it sufficiently clear that the sense of absence is generated in us by the complex situation of the locus contradicting the suggestion. We posit absence as a unitary fact because we erroneously think that every word that we use in our ordinary work-a-day life refers to a fact. This is, however, not to be taken to indicate that absence is a subjective phenomenon. I have previously pointed out the difficulty of subjectivism in the explanation of negation. It may now seem that I am playing with words. If absence is neither objective nor subjective, it may be contended, it is in fact nothing. I thus seem to be driven to the conclusion that in a negation we know nothing except the locus which is a positive fact; that is to say, negation is either inexplicable or a mere play of words. Strictly, however, neither of the alternatives is warranted by what I have said in regard to the fundamental structure of negation. I can, in my own way, reconcile these two apparently conflicting statements—that absence is not objective, and that it is so, and this reconciliation is inspired by the analysis I have given of negation in general, and, for that matter, of absence in particular. To put the matter shortly, the absence of a fact is the situation of the relevant suggestion being contradicted by the locus in question. Absence so considered is evidently to be regarded as objective in the sense that the contradiction is determined by a fact or facts that are given, and consequently in the elaborate sense that we are obliged to be aware of it. But this is far from the assertion that absence is a fact with a content of

its own that is given like any other positive fact at the perceptual level. If one still insist that the word "absence" denotes a unitary fact we can fix on and that negation, whatever its peculiar characteristics, is a form of knowledge that is not far removed from affirmation in so far as its status is concerned. I have to point out that this attitude is due to the illusion that is created in our minds by the form of language used there. When we have absence of anything in view, we are left with a situation which is after all objective, but when we look for the objective fact the word "absence" is supposed to indicate, we fail to put our finger on anything tangible except the locus, and this is revealed in a reflective analysis of a case of negation.

(iii) I should now turn to a problem which is not less important than any that has been discussed in connexion with negation, and this is whether negation is judgment—a problem which is evidently bound up with the problem of the fundamental nature of judgment, and cannot, on that score, be settled entirely by a consideration of the situation of negation alone. Attempts are, however, sometimes made to deduce judgmental character of negation from an element involved in the situation of negation itself, especially from the nature of the perception of the locus. But it is rather baffling how a negation can take on the fundamental characteristic of the form of knowledge upon which it is based. It cannot be conceived to assume a feature which is not inherent in it, only in virtue of its association with a form of knowing in which the feature in question appears. The analogy of water taking on the colour of the vessel that contains it is of no use here inasmuch as water is there a fact in Nature, whereas negation is a form of awareness. Not only this. I may, besides, point out that, however different the theories of negation, except the exponents of the theory that negation is a fact and objective, none would maintain that the thought-function

in negation *qua* negation consists in a contact with a corresponding fact or reality, and is, for that matter, a judgment, though there is no denying that contact with a real through a judgmental form of knowledge is one of the presuppositions or conditions there. Considering the matter from the point of view of the theory of judgment that I can adopt, it would be hard to accommodate judgmental character in the fundamental structure of negation as such. Judgment, broadly speaking, consists in assenting to an idealized content that is given in a secondary apprehension. Turning now to negation proper, I find that there is an entire lack of this factor. An idea is doubtless involved therein, and I have tried to make clear that an idea as a mere idea cannot be put into function in a negation and that an orientation is introduced into it before it operates there. I have no need to bring in all relevant matters here ; for the only point that demands our serious attention is whether in a negation assent is involved. The suggestion with which we begin in a negation is neither a judgment nor a mere idea. And when with this we come to perceive the context that is subsequently taken as the locus of the absence in question, our assent in the form of a judgment, in which the idea employed in the suggestion to function is to idealize the given, is withheld because of the incompatibility of the suggested and the given. Certainly we know the locus and that knowing is in the form of a judgment. But all this is another matter and has nothing to do with the suggestion or the negation in so far as its judgmental character is concerned. This will still more be evidenced by the fact that we can have or do have that judgment independently both of the suggestion and of the corresponding negation.

It may, nevertheless be asked : How then to characterize negation as a form of knowledge ? The answer to this query is simple enough, and it is this, that negation being

a form of awareness is apprehension. But the apprehension there is a bit inward and far deeper than the apprehension of facts that are given at the perceptual level inasmuch as the apprehended, though not wholly psychical, is subtler and more complex than the contents of ordinary apprehension.

It is now obvious that two birds have been killed with one stone ; by characterizing negation as apprehension I have shown not only that it is not a judgment, but also that there the question of truth or falsity cannot arise at all. It may, however, be argued that the position I have sought to maintain is rather absurd ; for it fails to do justice to common practice in life. When somebody says unto me, for instance, that Mr. Smith is not in the adjoining room, and goes in to find him to be there in that room, he at once declares his assertion false. This shows that negation, for all practical purposes, falls within the province of truth and falsity, and also that negation can well be taken as judgment. At first view the contention will be found to be based on a solid foundation, but if we stop to think over the matter we shall find much that can be urged against it. Let me then first of all consider what is declared false in the situation referred to above. When I am told that Mr. Smith is not in the adjoining room I evidently get a statement made before me. It is not of immediate importance whether the speaker cuts a joke or seriously gives expression to what he knows. It suffices to say that the statement is made and I understand it, and it is precisely from this point that an analysis of the case should begin. If I understand the statement at all it is at once clear that the statement is significant. But the significance may not be quite the same to both the speaker and the hearer. If the speaker make the statement on the authority of somebody else, he will find himself with much the same mental state as the hearer inasmuch as both of them are induced to think

reflectively of the negation stated as a possible one in the light of the negations they have had actually in their experience. So it is to be seen that the significance of a negative statement is in a way constructed in the very act of entertaining it as significant and is, for that reason, far more complex than that of a positive statement. If, however, the statement referred to above is taken as an expression of the speaker's apprehension of a situation in which a relevant suggestion is known to be contradicted by a fact given, the significance of the statement as presented to the hearer would be a little different from that intended by the speaker, in the sense that the hearer will be left only with the suggestion " Mr. Smith being in the room " which is not yet contradicted by an actual presentation within his experience, but is only ideally manipulated in relation to a possible incompatible. To put the point shortly, the statement in question as used by the speaker is quite the expression of the actual negation which he made previously and which now persists through his memory. The statement, on the contrary, appears to be a mere statement to the hearer ; for there cannot be a retrospective reference for him in so far as the immediate import of it is concerned, there being simply an indication of a negation that is possible and which he understands on the analogy of what he actually did in the negations he made in the past. The salient point that demands to be discussed is therefore this : Exactly with what on the side of ideation is the hearer to proceed before he can declare the negative statement false ? Falsity and all that, of course, requires him to begin with the negation as a judgment. But the point we have to bear in mind is that in the statement itself there is nothing like a full-fledged negation in so far as the hearer is concerned. There is then no question of a negation being a judgment. So if the hearer reject in the long run what he has as the significance of the statement,

whatever else may be said regarding it, it cannot at any rate be asserted that he is showing forth the falsity of a negation. On the other hand, from the point of view of the speaker himself no question of falsity of a negation can arise, because there must be an articulate idea claimed for, for a negation to be false. As has already been indicated, the notion of a negative idea is nonsensical. There can, therefore, be no assertion or affirmation in a negation in the strict sense of the term, and, for that matter, nothing like falsity of a negation, inasmuch as falsity like truth always attaches to judgment.

I may approach the problem from yet another side and see what follows. Even if I admit for argument's sake that there is such a thing as a negative suggestion, it will not be of much avail. It is not very hard to see that a suggestion as such cannot be entertained as true; for it to be true must cease to be a mere suggestion. And, if there is previously no claim for truth, falsity is out of the question. Strictly, however, a negative suggestion is an absurdity; for a suggestion must have invariably a positive import. The possibility of a negative suggestion presupposes the possibility of a negative idea which in its turn needs for its basis negative facts. But I have shown that so-called negative facts are chimeras. The contention that we proceed with a negative suggestion in the case of a negative statement is inspired mainly by the confusion between the negative statement in question and what functions in mind at the moment. Thus, in our analysis of the instance, "Mr. Smith is not in the room," we are apt to think that the suggestion is negative. On reflection, however, it will be found that there is a good deal of difficulty in the conception. If it is actually the case that we do begin with a negative suggestion, what is then precisely meant by it? If a suggestion can be negative, it must obviously involve a negative element. But it will be very

difficult to show that this negative element is anything short of a negation proper. It may, however, be retorted how then are you to interpret the statement, for instance, "The table in that room is not brown?" To this my answer is quite easy, and I may put it like this that there should be no confusion between the significance of the statement and the negative suggestion that is said to be inspired by it. Some significance undoubtedly there is, which in fact consists for us in inducing us to think of the negation expressed by it. We do not nevertheless ourselves make the negation; we rather understand it on the analogy of the relevant one that persists within our consciousness through memory. I may then say that, whereas the passage from a statement to the negation expressed therein is direct for the speaker, the approach the hearer makes towards it is all indirect. Anyway this much is certain that in either case a negation is fixed on. Where is then the suggestion? In the case of an affirmation the suggestion is a step on to affirmation. In the case of a negation, however, as has already been seen, the suggestion is refused this status by reason of the incompatibility between the given and the suggested. If one still insist on anything like negative suggestion, the problem that immediately appears is not so much whether it is to be regarded as a step towards affirmation or negation as whether it is an articulate process of thought. Now it ought to be clear that a negative suggestion, if we can speak of it at all, cannot be anything but the thought of a negation, which cannot be equated with anything like a suggestion of negation in general; for, if it were so, the suggestion would defeat its purpose inasmuch as a suggestion is significant only as direction of an idea to a fixed point. So I have to say that we have the so-called suggestion of a negation only as the import of a negative statement, which is nothing but the sense of the negation in question. So a so-called

negative suggestion presupposes the very thing it is calculated to lead up to. The phrase "negative suggestion" is, therefore, to be discarded as unmeaning.

I may now be told that a negative suggestion is another matter and has nothing to do with the falsity of a negation, and I may still be asked to explain such experience of ours as non-observation. It is a matter of common experience that we sometimes fail to perceive an object in the very context where we look for it. Thus I may have "Mr. Smith is not in this room"; but a subsequent perception may correct it and show it to be false. And it may be contended that at least in this particular case we can well have falsity of a negation. But it has to be realized that any case of non-observation will not serve the purpose of my opponents. To this end some specification of the relevant case needs to be made. In a situation, to begin with, we have to get a negation before we can show that it is corrected by a subsequent perception. Let me examine the case cited above and see what follows.

It cannot be denied that without formulating beforehand the criterion of truth and falsity we can scarcely settle the issue of the falsity of a negation. But I cannot enter upon any detailed discussion on the point immediately; for that will take me far from the theme under consideration. I shall then do no better than indicate what is to be meant by truth. To put the matter in a nut-shell, truth consists in the corresponding of the ideal content employed in a judgment to the relevant fact, or rather the fact on which the judgment in question fixes. In reality truth attaches to a judgment, and it is a judgment which is true or false. So the possibility of a negation being falsified presupposes a negation being a judgment. As I have already shown, a negation represents no negative objective fact. There is, therefore, no possibility of there being a negative idea, and, such being the case, a negation cannot be construed into a

judgment wherein is involved an idea by virtue of which a situation of truth appears and by the instrumentality of which a judgment takes place as a claim of truth. A negation then falling as it does far short of a judgment clearly does not come within the scope of truth and falsity ; for truth lives only in judgment, which is, on that account, true or is falsified.

It may, however, be argued that a theory of truth should be built on common practice in experience, and that practice should not be made to accommodate itself to a cherished theory. But the contention itself will be found on examination to be nothing but a confused view of the practice to which an appeal is made. Let me consider the matter in some detail. Both from the situation of an affirmation and from that of a negation we can pass on to the situation which gives falsity to the former. Generally, however, we do not take care to grasp clearly what is actually falsified. I may begin my analysis by saying that in the case of an affirmation which is falsified, we feel that the affirmation ought not to have been made, which in its turn indicates that the objective content which was the subject-matter of the affirmation in question, though it appeared to be given, was in fact not there. In the case of a negation, however, which appears to be falsified, there is no such feeling, and this shows that there is no cancellation of some fact by some other, and, for that matter, of one affirmation by another. Such cancellation being the core of falsity, negation does not fall within the province of falsity. Let me illustrate my point by an example. I have in a certain context the negation, for instance, " Mr. Johnson is not in this room," and this negation may be due to the fact that I do not observe the presence of Mr. Johnson, the non-observation being occasioned by a hurry, or by a partial view of the room in question, or by Mr. Johnson hiding himself. Then when after a while I perceive

him, the negation "Mr. Johnson is not in this room" previously made seems to be falsified. But the situation viewed in the true perspective will not be found to afford an occasion for falsity. If we look into the locus we shall find that it is on the basis of the room as presented to me that the negation is made, or rather that the negation is made only with reference to the part of the room, which is presented to me; for if Mr. Johnson is actually present in the room in spite of the fact that I do not perceive him, evidently that part of the room, wherein he is, does not come into my view, and this shows that the whole of the room is not given as the locus of the negation, so that Mr. Johnson's absence from the relevant part of the room in question does not in any way come to be contradicted by his presence at any other. On the other hand, if Mr. Johnson is first found to be absent from the room, and then found to enter it to be present therein, there cannot be any opposition between his absence from the room at a definite time and his presence afterwards. So out of such a situation no question of falsity of a negation can arise. Difficulty, however, arises only from the point of view of the expression of such a negation as I have just considered. In fact, the expression indicates much more than it is intended to express, and there may be some good psychological reason for this anomaly. When I say, for instance, "Mr. Johnson is not in this room," presumably my intention was to see whether he is there, which was to me just a query. So when on finding him absent from his usual seat or from any other part of the room, this corner or that corner, or the middle part of it, or even the major part of it, which is almost the whole room, I utter "Mr. Johnson is not in this room," I am under a psychological illusion, so to speak, to think that I am supplying the right answer to the query with which I started.

It may still be pointed out that a situation of qualitative negation in which we negate a quality of a thing on the basis of an existent quality therein affords an ostensible case of falsity of a negation. For instance, when a person is afflicted with jaundice, it may be contended, he is not conscious of his ailment and its effects on perceptual contents and negates of a table in a definite context a colour, say, "brown" on the presentation of "yellow" therein, and when on his recovery he corrects his statement made with reference to the table in question on the presentation of "brown" therein, provided that no cause or conditions intervene in the mean time to interfere with the original colour, is not the negation he previously made, I may be asked, falsified? I may point out in reply that the question of falsity arises here only on the supposition that negation is co-ordinate with affirmation and that they are capable of cancelling each other. It has already been made sufficiently clear that negation is far more complex than affirmation, and that the former in fact presupposes the latter. So an affirmation does not, as a matter of fact, maintain itself by contradicting the corresponding negation, and a negation never stands on the cancellation of the corresponding affirmation. It may now be argued that, though an affirmation stands on its own ground and by its own right, yet it is found to contradict the corresponding negation. But this is nothing peculiar to affirmation. We can get contradiction also the other way about. A negation can well be taken to contradict the corresponding affirmation. Here affirmation and negation are taken at the level of statement, and in the opposition between the two the falsity of either is out of the question. If we, however, view the matter with reference to the situation in which a negation, say, "The table is not brown" is actually made, we shall find that we may have the corresponding affirmation in the context on the disappearance

of the positive quality that was given as the ground of the negation, and on the presentation, in its place, of the colour "brown." So the content of the previous affirmation is cancelled by the content of the new affirmation being given, and this leads by implication to the contradicting of the previous affirmation by the new one. These are in short what go to constitute the falsity of the previous affirmation. It can now be seen that, the new affirmation being true, the previous affirmation—the basis of the negation corresponding to the new affirmation is falsified. But this falsification does not extend itself to the negation itself despite the fact that the truth of the new affirmation implies not only the falsity of the previous affirmation, but also the reality of what was negated in the negation in the context in question; a negation cannot point to a factual negative content to be cancelled by the content of the corresponding affirmation. It cannot, of course, be denied that the negation in question cannot stand when its ground is destroyed. But there is a difference in the destructions of the two. The foundation of a negation is, so to speak, made to slip out of its place, and the structure that is reared on it is found to topple down. It can, however, be pertinently pointed out that the negation "The table is not brown" can be maintained on any other ground than, say, "yellow," so the destruction of the colour "yellow" in the context under consideration cannot affect in any way the negation "The table is not brown." It is doubtless true that, when the colour "green" or "red" is given in place of the colour "yellow," the negation "The table is not brown" is not affected in any way. But we cannot overlook the fact that the negation "The table is not brown" made on the ground of the colour "yellow" is different from the negation "The table is not brown" made on the ground of the colour "green" or "red," in spite of the fact that there is an identity of form in the

two negations and in the two corresponding negative statements. This will not, therefore, help us much. On the contrary, it is all the more clear that the colour "brown" being affirmed and true in the context in question comes in direct opposition to the negation "The table is not brown"; nay, there is something more than mere opposition. In fact, the contrary of "brown," which was the ground of the negation "The table is not brown" being cancelled, and, for the matter of that, the corresponding affirmation on which the negation was based being falsified on the presentation of the colour "brown" in the context in question, the situation of negation is destroyed. But there is scarcely anything like falsity of the negation inasmuch as in a negation there is no claim for truth, which presupposes a distinction as well as a relation between idea and its factual counterpart.

8. It may, however, be argued that, if the question of truth and falsity is not relevant in the sphere of negation, what can possibly be the significance of the negation of a negation? The negation of a negation is ordinarily equated to the affirmation corresponding to the original negation. On the face of it, there is an ambiguity about the word "equation" employed here. I may here raise the legitimate question: Does the negation of a negation mean the negation of a negative statement, or is there anything like negation of a negation proper? Let me take the first alternative first and see what follows. If it is maintained that by negating a negative statement we can arrive at the affirmation in which what is negated in the original negation is affirmed, the second negation cannot mean anything more than mere rejection. Negation proper, as I have already pointed out, cannot be interpreted as rejection which is after all an act of will inspired by relevant feelings. So if it is contended that in the situation of the negation of a negation it is a statement that is negated, all

that we come to is that the original negative statement is rejected. Such being the case, it is not here proper to speak of anything like negation of a negation.

There is doubtless an element of truth in the contention that the negation of a negation is equal to an affirmation. The negation of a negative statement,* a rejection as it is, there cannot be unless the subject concerned knows beforehand what is to be negated in the negative statement in question. I can reject the statement, for instance, "The table is not brown" only when I know definitely the table to be brown. I may know a fact or a feature of it in a context and have recourse to a so-called double negation in order to give an emphatic expression to the mode of knowing which is really positive. There is, however, no negation proper; for, if I am already in contact with what is to be negated in the context in question, any negation of what is known by me there is out of the question. So from the point of view of what I am trying to establish, the so-called negation of a negation is found to represent merely a usage of language, but no articulate act of thought or cognition.

Now it is to be pointed out that, if a negation point to a negative fact, say, absence of something definite, in the situation of the negation of a negation there must be an objective negation, or rather an objective fact corresponding to the second negation also. In the negation "There is no jar on the ground," for instance, if the absence of the jar is all that is asserted therein, the negation "It is not that there is no jar on the ground" will require for its counterpart a fact which should be merely the absence of the absence of the jar. Taking for argument's sake that absence is factual and objective, the absence of absence would scarcely

* 'A negative statement' is employed to mean a possible or problematic negation and is to be distinguished from a negative expression in which a negation is indicated.

be anything intelligible. The absence of a thing at a point, whatever it is in itself, is significant only in relation to its presence possible or actual elsewhere. So the conception of the absence of absence involves a confused identification of absence with presence. Further, a progressive series of negations, starting with an initial negation may convey to us a progressive rarefaction, so to speak, of the absence originally fixed on. But then there will be no advance in knowledge beyond the absence that is supposed to be known in the first negation. So the so-called negation of a negation, negation being interpreted even objectively, does not represent a genuine act of thought or knowledge.

A negation, as I have interpreted it, precludes the possibility of its being negated. To repeat, a negation does not represent a negative fact, though it points to a factual situation and is simply an act of our being aware of a suggestion being contradicted by a positive character or characteristic of the fact which is the locus of the negation. If I say, with reference to a context, "This table is not brown," and that if I say because of 'black' in it, there must have been previously a suggestion of the table in question being brown. Similarly in every negation a relevant suggestion is one of the elements that are required there. The negation of a negation, therefore, to be a negation, must presuppose the suggestion of what is to be negated; there what is to be negated is obviously a negation. Consequently the negation of a negation presupposes a negative suggestion which has already been shown to be an absurdity.

Further, as I have contended, in every significant negation there must be a positive basis in the locus in question to repel the relevant suggestion. In the negation of a negation the positive basis will evidently be nothing short of what is negated in the first negation. Thus in "It is not that this is not a rope" I must perceive "this" to be

a rope before I can dismiss the first negation. But if I read this dismissal in terms of negation, there would be not only a difference in the sense of the word "negation" as employed in the two cases, there would be also an un-called-for circumlocution. Anything like negative idea, and, for that matter, negative suggestion being an absurdity, the so-called "negation of a negation" would strictly be no negation in spite of the negative particle 'not' occurring there. Besides, if the positive fact which is negated in the original negation, is immediately fixed on and known, there would be not only no occasion for the supposed negation of the negation, there would be also no scope for the original negation that is taken to be negated in the second negation. There can at most be a rejection of a negative statement with reference to the content of the corresponding affirmation. But, as I have shown above, neither a negative statement nor a rejection of a fact or a statement can be construed into a negation proper, which is after all an intellectual act. There is, therefore, good reason why we should discard "negation of a negation" as an unintelligible piece of grammatical device which represents no function of thought whatsoever.*

* I have omitted to refer to what is ordinarily called a universal negative proposition, and I may be asked as to how universal negative propositions can be adapted to my theory of negation. Taking the universal negation "Swans are not black," for instance, we find that there the colour "black" is negated not of any definite particular swan or swans, but of the whole class of swans, wherein the number of swans is indefinite, though not strictly infinite. A class being no mere collection of individuals, a negation that is made of it is not made of every particular individual comprised in it, although the negation holds of every individual therein. But what is the basis of such a negation as "Swans are not black?" There is no doubt that a universal negation presupposes some negations with reference to some relevant particulars. As in the above instance, I must know at least some swans not to be black before I can have the negation "Swans are not black." This is, however, not to say that in a universal negation a particular individual or fact in its particularity is the immediate locus of the negation. On the other hand, the fact is that in a universal negation the suggestion that is repelled by the colour in the relevant individual is found to be contradicted by the essential nature which the individual in question shares with an indefinite number of other individuals, an essential nature which is universally correlated with the colour on the ground of which the suggestion is repelled. All this, however, takes place at the reflective level and is far removed from ordinary particular perceptual negations. But whatever the process of reflection that functions and whatever the principle or principles that control that process, the situation of a universal negation exhibits all the fundamental features of negation proper.

CHAPTER V

THE NOTION OF TRUTH AND THE CRITERION OF FALSITY

1. In this chapter I propose to discuss the problem of truth and falsity—a problem which is as old as the science of knowledge. It goes without saying that the problem is not an isolated one, but is intimately bound up with those regarding idea or meaning, judgment and apprehension. But, within the small compass of this chapter, it is not possible to bring them all into the discussion, though there is no denying that one cannot do justice to the theme without at least some reference to the attitude adopted towards them. It will not then be out of place here to mention that I have given to them all due consideration elsewhere. Here, however, I can do no more than make reference only to the salient points worked out there, which will, I think, suffice for the purpose.

2. To begin with the notion of truth itself, whatever the theories of simple apprehension, it is universally agreed that it is a prejudgmental stage of our awareness, wherein the notion of truth is lacking. I am not courting criticism, I hope, when I say that the contents of simple apprehension are immediately given and that there we have not yet abstracted ideally the fundamental nature of each from the concrete embodiments. The notion of truth, in short, emerges in our consciousness when some sort of severance, though no absolute separation, by way of a distinction between the subjective and the objective, has been effected through the formation of articulate ideas referring to the relevant things. An idea that functions as an element in the situation of knowledge is just an intellectual reference,

which, referring as it does to an objective identity, is self-identical. It is somewhat of a paradox to say that an idea as reference¹ is indefinite. If we, however, look into what is exactly meant therein we shall not come on anything absolutely absurd. An intellectual reference there can be only if a definite content is ideally fixed on; so, there is scarcely anything like indefiniteness *within* an idea. There is none the less an indefiniteness *about* it, and that with reference to space and time element only; that is to say, an idea as such does not indicate the where and when of the content referred to inasmuch as idea originates in the freedom from any contextual reference. So the conception that an idea is indefinite in reference seems to have arisen out of some loose thinking about its origin as well as its function. If an idea could, by virtue of its intrinsic nature, conjure up the relevant fact in its concreteness before us it would doubtless perform a feat, but any such feat, however important for us, is out of the question from the nature of the case; for idea *qua* idea arises only by positing a severance in being between the subjective and the objective. I must here refrain from going into detail concerning this question, tempting as it is, and pass on to consider whether truth attaches to idea or to judgment.

3. From the short analysis given above of the nature of idea, it seems to follow that the full conditions of truth are lodged therein; for, truth, no matter what the theorists might say this way or that, is always what regards fact or reality, and an idea as reference is always an ideal function pointing to the relevant fact. But it will not do to forget that the severance between the subjective and the objective, to which idea owes its origin, was effected through the initial contact with fact or reality where and when there never was any such division. When, however, the severance was

¹ Idea as reference is to be distinguished from image and sensation.

actual, it was not all a turning away from fact ; it was, on the contrary, indicated as an actuality through a yearning which is, I may say, quite what is called idea.

Truth by its notion implies contact with fact, though it is not itself the contact. An idea, as is shown above, as a yearning on the part of consciousness for contact with the corresponding fact is not only indicative, but also reminiscent of the relevant past experience or experiences. This reminiscence, however, falls outside the core of an idea ; for an idea is reference and is in its nature, though not in its origin, independent of the context or contexts in which the identity in question is found in concrete embodiment. If it has anything to do with context and concrete fact, anticipation of possible experience which is to be understood in terms of past contact only is all that is implied by it. Now it ought to be clear that, in whatever way we may make an approach to an idea, contact with reality—the basis of truth, would be found lacking therein ; there is something yet to be fulfilled before it can enter as an element into the situation of truth. But the condition of this fulfilment can by no means be furnished by the idea itself ; for that will require an experience wherein we stand face to face with fact. I can, therefore, conclude that truth cannot be tacked on to an idea which is nothing more than a mere mental representation of the relevant fact or facts in the most fundamental aspect without any indication whatsoever as to where and when they exist.

4. Where is then to be found the situation in which truth appears ? In the pre-judgmental stage of our experience, which is to be called simple apprehension, there is, of course, contact with facts, that forms itself into an occasion for the formation of the relevant ideas within consciousness ; but that contact is not in the least articulated in consciousness inasmuch as any such articulation will necessitate mediation of idea, and, for that matter,

an element of recognition. So the contact with fact, that is implied by truth as its basis, is altogether of a different order from, or rather far more complex than, the initial contact involved in the situation of simple apprehension. In other words, truth requires for its very being a form of perceptual experience in which we are aware of the contact by way of determining the given in thought, and this determination entails the use of an idea and the subject's attitude that takes shape in claim or assent. All these are, in point of fact, fulfilled in the situation of judgment. So it is only in the sphere of judgment that truth is found.¹

In simple apprehension the facts are immediately given without the mediation of ideas which take their rise in the course of our mental development. Even coming to the level of adult knowledge, we find that it is not through ideas that we come to know facts. What, on the contrary, happens is this : facts are directly given and fixed on, and then thought of. When we know a table, for instance, in a context, it is not that we reach out to it through anything like transparency of the idea " table ". We, on the other hand, apprehend the table in question given as a fact by the suggestion of which the idea subsequently rises in our mind, and the judgment " Here is a table " takes place when we claim truth on the basis of the content presented. Judgment then is not the only avenue through which we approach facts, but is in reality a peculiar mental dealing with the fact or facts apprehended. In adult knowledge, of course, there is ordinarily no appreciable temporal gap between apprehension and judgment in the situation of judgment. But this is not to deny that apprehension is

¹ Some may object that I am unnecessarily narrowing down the sphere of judgment by making it all perceptual. But, all discussion apart, the objection is based upon the age-old confusion between truth and validity, and consequently upon a confusion between judgment and inference. For my part, I do make a distinction between truth and validity, which corresponds to that between judgment and inference.

the basis of judgment. An acute analysis of the twofold grade of apprehension in relation to judgment will provide the clue to the proper solution of the problem of truth. To be brief, in a judgment we do not pass from idea to fact at the outset. We, on the contrary, begin with an apprehended fact that leads to the relevant idea and is then presented as a suggestion to which we assent by claiming truth. These processes pass so rapidly that they appear synchronous enough to constitute a compact whole. We, however, cannot claim truth if we do not know what truth consists in. But there is no high *a priori* road along which truth can trundle down at our call from a region hanging far above the experiential world to a context of our experience; if we claim truth in a judgment it is a sufficient argument for the fact that it is also known, and, for that reason, involved therein.

5. In a particular context, I judge, for instance, "This is an elephant"; obviously there I do not fix on the idea "elephant" arbitrarily: there is manifestly an objective control in the judgment. The process of thought involved in a judgment is, so to speak, a complete circle, or a straight line along which we twice travel. What I intend to convey through the symbol is this, that, in the situation of judgment, we first pass from fact to idea, then from idea back to fact again, and truth consists in the second movement of thought. In short, we claim truth when an idea is found to correspond to the relevant objective content presented. This correspondence, however, is not, in any sense, structural identity. It would be very difficult to show that an idea is a complex structure corresponding, bit by bit, to a complex fact given. Further, what sense is there in speaking of correspondence between two things? We may at most say that two or more things resemble. The relation of idea to fact, however, is not like the relation that subsists between two things resembling,

and their correspondence is not consequently resemblance. If it is that truth consists in correspondence between idea and fact, it cannot in any way belong to an idea *qua* idea ; for an idea is only one of the elements that go to constitute the situation of truth which strictly attaches to what claims it, *i.e.*, to judgment. Thus, the fact a judgment fixes on is already a suggested content which is nothing but the relevant idea and the fact presented in their reciprocal relation which elicits, in ordinary circumstances, assent from the subject concerned through recognition, on his part, of the fact that the idea in question fits in with the fact presented. This shows that the presented is perceptually known through the relevant idea which coalesces with it. I should, however, hesitate to speak of an idea as being a constituent of a presentation ; for the presented as idealized becomes content of the corresponding secondary apprehension and ceases to be a pure presentation. Moreover, if a presentation is essentially linked to an idea, that will indicate not only that presentation is unaccountably raised to the level of thought-content, but also that an idea is something mystical, there being no explanation of its origin on any empirical basis. The fact, however, remains that, though we cannot separate idea from the presented and hold them apart, yet in perceiving the presented to be so-and-so we do in fact distinguish between the presented and the ideal, otherwise it is not possible to judge, inasmuch as a judgment is essentially recognizing an idea's fitting a fact presented. I may thus set forth that truth consists in correspondence which is but an idea's fitting with a fact apprehended.

If anybody object to what I call idea's fitting with, there will undoubtedly be many to object, inasmuch as one can question everything speculative, I must in reply make an appeal to experience. We know what this fitting-in-with is when we burst out laughing before a person who

declares a table, in front of us all, a quadruped. I can make it a little clearer by saying that it is just what is warranted by the fundamental nature of idea *qua* idea, indicating thereby that the fitting-in-with of an idea really means its relevancy to the objective content in its concreteness, that is under consideration, and all this signifies that the fact presented is the meant the idea in question means.

It may further be argued that correspondence even in this reorientation is not intelligible in the least apart from the solution of the problem as to how an idea can fit in with a fact which is not a mere idea. Here the problem referred to is a vast one ; but I cannot now take it up for reasons stated above. To say the least regarding it, I do not find anything to warrant a strict dualism between consciousness on the one hand and the objective contents on the other, though there is no gainsaying the fact that there is a duality which is intellectually grasped only in an abstraction. What our immediate experience begins with is not a bare consciousness, but a consciousness with an inarticulate whole as the content, and as our consciousness deepens, the content gradually gets diversified ; the development of consciousness renders the contents articulate, while their articulation determines its development. If there is a problem, there is certainly one, as to the exact relation between consciousness and its objective contents, that should be relegated to metaphysics, and we should not thereby muddle our logical theories.

Mr. Wildon Carr pronounces an indictment upon the correspondence theory, which I cannot ignore ; for it has a direct bearing upon the discussion. " The theory that truth is correspondence," says he, " we found to offer this difficulty ; to say of an idea that it corresponds with reality supposes a knowledge of reality in addition to, and distinct from, the knowledge that is the idea and yet the

knowledge of reality is the idea of it.”¹ I cannot here enter upon any detailed discussion on Mr. Carr’s point of view. I shall only indicate the confusion he labours under. In the first instance, his assumption that the knowledge of reality is the idea of it is gratuitous and hence arbitrary. Mere idea of a thing there may be, and in fact there is an imagination. There is, however, a long stage from mere imagination to knowledge proper. When we know a thing, especially at the perceptual level, it is by no means that we only get a mere idea of it, and that is why representationism fails to show how we can reach out to the factual counterparts of ideas in a context of perception. It is a travesty of fact to assert that in the situation of a judgment we first know a fact and then turn to the idea of it existing in consciousness, compare them and finally declare their correspondence. Secondly, judgment is after all a dynamic process which as such cannot be an accretion of discrete cognitions. The judgment, for instance, “There is a dog” does not, as a matter of fact, involve the distinctive cognitions of the fact given *qua* fact, of the idea “dog”, and of the correspondence between them. Truly speaking, a judgment is an integral whole in which we can hardly separate the process from the product; for the product there, if we can so call it, is the process itself. What actually happens there is this: We apprehend a fact not as a bare existence, but as a suggested content, *i.e.*, as a content idealized, and there thinking consists in the emergence of the idea within consciousness in and through the presentation of the fact. But the idea is not on that account grafted on the content presented, nor does it intervene between consciousness and the content in question. An idea, in short, is a modal activity of consciousness, which is relevant to the objective content which is

¹ The Problem of Truth, p. 88.

the meant. The suggestion of the fact given reveals that the fact has already been determined through the relevant idea, and the relevancy shows itself up in the idea coalescing with the presented through an objective control. Hence it is not altogether absurd to say that truth appears before us and seen, though truth cannot be taken entirely on the side of the object so as to make it a feature of that like colour or shape ; for consciousness has its own contribution to make to the very structure of truth. To put the matter shortly, truth is seen only as a feature of an objective content fixed on in a judgment inasmuch as judgment is essentially truth-claim. We cannot claim truth unless truth itself falls within the situation of the claim. So strictly a criterion of truth is a misnomer ; for a criterion, even when taken as being involved in experience, has about it a sense of exteriority. Bosanquet maintains that the criterion of truth is immanent in experience. I, however, find reason enough to go a step further to assert that a criterion is otiose, because truth is immanent in judgment, and hence we are not to look out for it outside any concrete situation wherein a judgment falls.

6. Now it may be pointed out that correspondence, as I have explained it, precludes the possibility of falsity ; for, if a judgment is truth-claim, and if truth falls within it, there would naturally be no occasion for rejecting a judgment. All this, of course, is plausible ; it is none the less obvious that an assertion without a claim cannot in any way come within the purview of falsity. Yet, the difficulty referred to remains all the same. There is still the problem as to how any notion of falsity can be adapted to the theory of truth propounded.

It is almost customary with logicians to bring both truth and falsity under the same yoke. Their theory of falsity on that account turns out to be merely a corollary of their theory of truth. There is indeed an element of

truth in the position inasmuch as the notion of falsity presupposes that of truth; a judgment which is found to be false, must have previously claimed truth. But it is far from the real state of things to say that in the case of falsity the judgment in question must have been held to be true; for it would be indicated thereby that judgment is all apart from any consideration of truth in so far as its nature is concerned, and that it may or does take on the adventitious characteristic, truth or falsity, after it has been duly passed, which is, however, not warranted by an analysis of judgment as it is in itself. The notion of truth indeed implies that of falsity, but not in the same way as the latter presupposes the former. When I judge, for instance, "This is a bird," it is not that this my judgment presupposes its falsity; the notion of falsity, being merely a logical implication of the notion of truth, is not to be necessarily present in the subject's mind when judging. The notion of truth is, however, the presupposition of the notion of falsity exactly in the sense that the former is present in the consciousness of the latter.

Now I have to discuss and determine what should be regarded as the proper criterion of falsity. Truth, as I have shown above, consists in correspondence which is but the fitting-in of an idea with a fact. Falsity, then, being the opposite of truth, is apt to be taken as negation of truth. But it ought to be clear that the absence of truth may point to a sphere where truth, and, for the matter of that, falsity is ruled out. The view that falsity is nothing but negation of truth will be found on scrutiny to align itself with the superstition that contrariety of all sorts is to be interpreted and understood solely in terms of the relation between affirmation and negation. If we at all take falsity as negation of truth, it would obviously be non-correspondence which will appear on analysis far more complex than correspondence that is direct and

immediate. In a judgment we assent to the correspondence of idea to fact. Our awareness of falsity will not on that score be in the shape of a judgment; one among other considerations prevents it from assuming judgmental character, and it is this, that falsity is always directed against judgment.

Besides, non-correspondence to be anything intelligible must attach like correspondence to an idea. A judgment, being an act of assent, cannot be taken to correspond to any fact. A judgment, on the contrary, is true only in claiming truth which consists in the correspondence of idea to fact. Non-correspondence then being lack of correspondence on the part of idea must consist in an ideal suggestion being repelled by the fact presented, and this forthwith leads us into the situation of negation. If it were the fact that the negative form of statement is the only form wherein to express falsity, which is tantamount to the assertion that the situation of negation and that of falsity are identical, we could not have the least hesitation in averring that negation is always directed against a pre-existing judgment. There is, however, reason enough to reject this view of negation. Here I am compelled to keep off any discussion on the question. I may simply indicate my position by saying that falsity and negation in fact fall apart from each other, though it is often the case that the situation of falsity leads to a relevant negation. Leaving aside all this for the present and fixing on the problem of the exact relation falsity as well as negation bears to judgment, I do assert that, whereas falsity is directed against judgment, negation has nothing to do with judgment as such, and, in point of fact, arises in an ideal suggestion being thwarted by a factual situation relevant to the interest that controls the act of intellection at the moment. It is therefore not off the point to assert that the notion of non-correspondence, sought to be brought to bear upon falsity,

reacts very unfavourably upon the conception of falsity itself inasmuch as the situation of negation is entirely different from that of falsity ; in the former the relevant attitude is directed against an ideal element, of course, in relation to the given, whereas in the latter the attitude adopted is towards a pre-existing judgment. A false judgment then, strictly, there cannot be, though a judgment may be falsified. To take a stock example from Indian philosophy, I am subject to a snake-illusion in a piece of rope ; a snake objectively appears (this, of course I know afterwards when out of the illusion ; but in the actual perception a snake-content is given and fixed on), and I not being aware of the piece of rope that lies in the background make the judgment " This is a snake." My later perception, however, reveals the existence of a rope, and I forthwith become aware of the falsity of the judgment " This is a snake " previously made. I do not here pass, though it seems that I do, from the judgment " This is a snake " to " This is a rope " On the contrary, what happens there is simply a turning back from the second to the first only to see it annulled. So to say that a judgment is false is to see that it is annulled, or which is the same thing, contradicted by another, and this annulment is entailed in the corresponding annulment of the fact in question by the contrary.

Prima facie, the two judgments—" This is a snake " and " This is a rope " are not opposed to each other as they may be employed with reference to different points of space and time. Opposition in any case arises between them only when in both of them reference is made to the selfsame point. We cannot, however, keep this opposition out of our way by attributing a mysterious power to a piece of rope to give out sometimes the appearance of a snake ; for even on this hypothesis of an inscrutable power in a rope we are left with the very opposition that baffles

us. Whatever the source, the opposition is brought before us by the operation of the principle that functions within our experience, that everything is with the nature of its own and that there cannot be consequently any overlapping of facts. It is due to this, and hence due to the opposition between snake and rope as contents of experience that this which is now taken as a rope is known to be so on the annulment of the appearance of a snake, that was hanging about it. So in the situation of falsity there is a twofold annulment. First, the content of the judgment that is falsified—the objective fact presented disappears on the presentation of the rope that is fixed on in the second judgment, and along with the disappearance of the snake-content the corresponding judgment founders for lack of the requisite factual support. To pronounce a judgment false is then not anything more than to declare that its content is contradicted by the content of another, and consequently that it is contradicted by the judgment that is our immediate concern at the moment. Thus falsity may be said to be more directly related to two judgments in relation than to the facts that constitute respectively the contents of the judgments. As a matter of fact, the sense of the falsity of a judgment appears in our awareness in the event of its being contradicted by another, and this is as immediate as our awareness of truth, but is not nevertheless susceptible of being put into the form of judgment. “This is false” is then on a level with “This is true,” and all that is indicated therein is this: in the latter we apprehend truth as consisting in correspondence, and in the former falsity which consists in a judgment being contradicted by its contrary. Truly speaking, “This is true” is meaningless; for there is no need for a criterion which must be by its very nature external to judgment, or it is a reiteration, in different words, of the self-identical judgment in which truth-claim is made. Thus, when I

say "This judgment is true" after having passed the judgment "This is a bird," the statement "This judgment is true." to be anything more than the judgment in question would be at most a reflection upon it. But it will be extremely hard to show that reflective awareness of a judgment is itself a judgment. The situation will not be a whit better even if we admit that reflection upon a judgment is itself a judgment. On the contrary, the matter will get much worse; for in that case an infinite regress will forthwith be under way inasmuch as the position adopted would imply that the truth of a judgment is not only not known within it, but is also invariably determined by and expressed in another judgment, which obviously involves an intellectual deadlock that arises out of an artificiality rooted in an unintelligent use of some forms of statement.

The form "This is false," or "This judgment is false" may be allowed, and is in fact more significant than the form of the statement "This is true"; for in the former one expresses in language one's awareness of a judgment being falsified. Now it may be argued that, if judgment is essentially truth-claim and if truth is immanent in judgment, falsity is out of the question, and is eliminated from the first. If a judgment, on the contrary, turn out false, it shows that the truth in a judgment is to be determined by an extraneous criterion and is not originally contained therein. Indeed, the contention brings before us the crux of the problem I am discussing, and in order that I may settle it satisfactorily, I have to undertake a detailed criticism of all the other theories of truth and falsity to show each of them to be untenable; but this I cannot accomplish here. There is, however, one consideration which when pressed into service will go a long way to resolve the difficulty that lies in my way, and it is this, that the very situation of falsity, far from going against my

position, corroborates, in its implications, the contention that truth consists in correspondence, in the sense I insist on. If truth like falsity, as some would maintain, were really extraneous to the structure of judgment, there could not possibly be anything like opposition between one judgment and another; furthermore, this would fail to provide any explanation whatever for the rejection of one judgment in preference to another. When I make the judgment "This is a rope" as in the instance cited above, which stands to annul the previous judgment "This is a snake," it would be, of course, against me to find that I stop to ascertain the truth in the judgment "This is a rope" with the help of some other judgment or judgments, or something else before the judgment "This is a snake" is cancelled. But the fact is that no sooner is the judgment "This is a rope" made than the judgment "This is a snake" is discarded, and this definitely shows that the truth of the judgment "This is a rope" falls within it, being determined by way of the relation of the idea that functions then to the fact presented; otherwise we shall be at a loss to account for what happens in an actual situation of truth or falsity. Besides, though we find that this or that judgment that we happen to make in some perceptual contexts gets falsified, yet the usual procedure in our thinking through experience, or rather in judgment-making and truth-claiming is not in the least affected. In view of the falsification of some of our judgments previously made, we do not, as a matter of fact, fumble at each step of our perceptual knowledge for truth, and do not accept only tentatively the facts as they come upon us. If we cling to the usual habit of direct approach to facts with full confidence in our grasp of them in spite of the correctives proposed by logicians, it is clear enough that the actualities of the situation of judgmental knowledge adequately answer to the theory of truth here propounded.

There is nevertheless a stumbling block yet to remove : I have still to show how falsity can be reconciled with truth and truth-claim which is judgment. Really, however, there is no question of any reconciliation. Here all that is demanded is a criterion of falsity which I have already set out with some details. What then yet remains to be considered is the fate of truth and truth-claim in the judgment that has been falsified. I can set at rest all speculation regarding it by the statement that in some cases it does happen that we are deceived by a truth-consciousness and a truth-claim, and this deception does not react prejudicially upon the normal course of our experience. We may assert that occasion for falsity is there, but is unintelligible. There is, however, no pressing need for any such extreme view. The situation will, on the contrary, be much simplified if we do not take the question of falsity as an appendage to the problem of truth, but as a problem apart and a special case, being an aberration from the normal course of our knowledge judgmental in character.

CHAPTER VI

THE POSTULATES OF KNOWLEDGE

1. In logic we are concerned with an analysis of knowledge in its fundamental forms and functions. So I shall do well to discuss here the principles that control and guide the processes of knowing. It is almost customary with logicians to consider at the very outset of their inquiry what are called the laws of thought. Some, however, drive a wedge between thought or reason on the one hand and objective facts—the contents of our empirical knowledge—on the other, and the laws are sought to be derived exclusively from the nature of thought or reason. “By first principles,” says Johnson, “we mean certain propositions whose truth is guaranteed by reason.”¹ But it is very difficult to maintain such a rigid division between reason and experience. Were it actually the case that reason was there with its ready-made principles independent of experience, it would be very hard to see how those principles could be operative laws within our experience of the objects of the empirical world. The rigid distinction between *a priori* and *a posteriori* is strictly an artificiality which has caused much mischief in the field of philosophy. To conceive reason as already ready with its principles without any regard whatsoever to the concrete contents of our experience is to indulge in an abstraction which does not answer to any fact. No one can deny that the cognizance of the primary principles of thought involves the operation of reason, but it does not follow from this that reason can function in *vacuo*. It is, in fact, in a

¹ *Logic*, Part I, p. 222.

concrete situation that the formal elements of our thought can be distinguished in introspection. So we cannot turn to pure reason for the principles, and we should hesitate to speak of laws of thought if they have no bearing on being. If we are to get at the presuppositions of the functioning of thought, we have to fix on our experience in which thought operates under some objective control.

2. I cannot, however, accept anything like what are called material postulates, which, as some contend, may be attained by way of an interpretation of our experience taken as a whole. These postulates, whatever the details regarding them, are admittedly some conceptions that coincide with the conclusions of a philosophy and possibly of science. A postulate is here to be taken as a principle which is presupposed in the functioning of thought. If we come to the conclusion by reflecting upon our experience that the universe will not be demolished in a distant future, that it will be conserved as the medium in and through which the realization of the eternal values will be effected, this will not by itself constitute a postulate of knowledge; for the body of our knowledge will not be paralysed in its absence. The conclusion will be, in short, a philosophical construction which will be in its turn based upon the articulation of a definite system of philosophy. But this as a metaphysical theory, far from being binding upon us all, will fail to command the assent of all philosophers; for nowhere else is divergence of opinion so great as among philosophers. In some cases undoubtedly it will wield its influence upon outlook of life. But knowledge or thought, though, generally speaking, subservient to life, cannot be identical with life. So it is idle to make an attempt to construe a regulative principle of life into a postulate of knowledge or thought inasmuch as it is not in any way binding on a knower to posit the material postulate mentioned above. The processes of knowing

will not be affected in the least by our envisaging the final end of the universe, far less by our ignorance of that.

It may, however, be retorted that the postulates proper, or, as ordinarily called, the laws of thought, themselves do not fare better; for even they are not accorded universal recognition. It is pointed out that Aristotle himself did not explicitly formulate the law of identity, and that even in modern times they are being denounced on the Pragmatist platform. Now the only way to silence the critics is to show that the postulates as controlling and guiding principles must be employed even in an attempted repudiation of them all. It is then worth while to encounter the opponents.

3. As has already been indicated, we can very well speak of the primary principles of knowledge as laws of thought. It may seem that in this use of the phrase "the laws of thought" there lurks behind such an abstraction as that the laws are derived absolutely out of pure thought or reason. In the course of the discussion I shall try to make clear that no such abstraction can be intended. The term 'laws,' truly viewed, is here quite significant as it brings out the notion of necessity on the part of thought to abide by the principles in its operation. But it is essentially at this point that most of the weapons of the critics are aimed. Thus, it is argued that, if the principles really represent the laws of thought, there should naturally be no exception to them. "It should be as impossible, to contradict oneself as to fail to gravitate." So it is contended that, if there were such things as laws of thought, namely, the law of identity, contradiction, etc., none could disobey them, and self-contradiction as an offence must be eliminated from the "catalogue of logical crimes."

4. To obviate the difficulty urged some may seek an apparently safer course; they may shirk the laborious

task of searching into human psychology and may endeavour to erect the principles as canons or ideals in conformity with which, it is urged, we ought to think. But this device will not help us much; for we shall have to end only by importing fresh difficulties into the matter. The alternative theory indicated above can be readily discarded on the ground that a chasm is unnecessarily created thereby between the actual level of human thinking and those ideals, which no logic can bridge. The laws of thought conceived as ideals to approximate to in actual thinking, will appear as externals to which the normal course of our thinking can afford to be wholly indifferent. If the principles are to be taken as binding forces, they have to be shown to be inherent in all thinking, and, if they in fact control all our thinking, as being immanent therein, they cannot be set apart from experience and conceived as norms to which our thought has to adapt *ab extra*.

5. To return to the difficulty raised above; if the laws of thought are inherent in thinking, to repeat the argument, how can one contradict oneself? The difficulty indicated may seem at first sight formidable, but a little reflection will show that it arises out of a misconception. The question that I have to settle in this connexion is whether all the elements of a knowledge-situation are on the same level of consciousness—a problem which is of the utmost importance. Any way, it is extremely difficult now-a-days to go with Locke to assert that to be in mind is to be on the focus of consciousness. The structure of our thought represents a range of consciousness which admits of varying degrees, or rather different strata. Whatever the details regarding this point, it cannot possibly be maintained that the functioning of the principles of thought are all unconscious; for they are the guiding light of the processes of thought, which are after all processes

in consciousness. But this is not as much as to say that they are always on the forefront of consciousness. What is true of the principles in this respect is also true of the processes of knowing in general. Ideal activity involved in judgment, inference, and other processes of thought becomes the direct object of introspection with psychologists and logicians. We cannot, however, distinguish between the two situations by asserting that in one the ideal activity is conscious and in the other unconscious.

On the contrary, the fact is that in the ordinary course of thinking ideal processes function, but they, as they are in themselves, are not attended to. It is only at a stage of reflection that they are brought before mind. Thus, though I maintain that the principles are inherent in all thinking, yet I do not insist that they are necessarily on the same conscious level as the empirical contents of knowledge. The case of children and idiots does not hence run counter to my contention. Idiocy is far above the level of insanity, and the difference between idiots and the intelligent is not one of kind, but of degree only. Idiots are, of course, lacking in the normal measure of the power of comprehension and imagination. They are nevertheless on the same footing with an average man in so far as the ordinary perceptual experience is concerned. And in all this, who can say that they do, in fact, abrogate the principles? In their experience there can scarcely be any confusion of data; they do not, as a matter of fact, take a man as a mango, a tree as a tiger.

It is undoubtedly true that a child's consciousness functions within a very limited range; but there cannot be a semblance of truth in the assertion that it shows forth an utter lack of the principles of thought-function. It can none the less be conceded that their operation therein is not very articulate as they, far from being purely *a priori*, in the sense that they are already in the possession

of thought prior to any concrete experience, come to be cognized in and through the collaboration of primal consciousness and its contents—the facts that are given to primitive experience.

It may, however, be pointed out that I have simply explained away the fact of self-contradiction that seems to be a stumbling block to my further procedure. Here we should make a distinction between two things, consciously contradicting oneself and what is strictly self-contradiction. Truly speaking, one cannot contradict oneself consciously. If I make two statements, *e.g.*, “ This tree is green ” and “ This tree is brown ” with reference to the same tree at the same time, and hold them to be true, I manifestly contradict myself. But such a self-contradiction is much too obvious to be made by any sensible man. It may nevertheless be that for the sake of fun or for some other reasons I indulge in making such contradictory statements without taking both of them to be true. In that case my hearer is not mindful of the contradiction supposed to be presented by the statements any more than I. So such a case of contradiction does in reality illustrate the functioning of a principle or principles of thought. A piece of discussion or discourse may, however, involve contradiction of which the subject concerned is not conscious, and that may be due to some psychological conditions which are enough to account for the non-recognition of the contradictories there. But this does not make against the principles of thought. On the contrary, detection of flaw in one's argument goes a long way to support the thesis that the operation of the laws of thought is involved in all thinking. The power of insight varies from man to man. In the ordinary course of life, especially in the sphere of abstract thinking, everyone cannot with an equal degree of efficiency manipulate the data and make inferences on the basis of them all. Difficulties and

deficiencies personal or otherwise oftentimes make us miss the relevant links in an ideal operation. But one corrects oneself as soon as the contradiction involved in the processes of one's thought is shown forth. Were it the case that we adhered consciously to self-contradiction, or rather self-contradictory opinions, it would doubtless be due to insincerity and a partisan spirit which are not less common in the field of philosophy than elsewhere. If we, however, look into the actual working of thought, we shall find that even in the situation of error perceptual or otherwise thinking is controlled by the fundamental principles themselves inasmuch as the subject concerned, himself unconscious of the mistake he is making, proceeds in a matter-of-fact way working up the steps quite as he does in any other normal case. No one can consciously commit an error, and the possibility of the cognizance of error as error presupposes the functioning of the principles themselves. This, however, does not indicate that in the process of committing an error the laws are kept in abeyance for a time ; for, however much we may be in error, we there at any rate think, and, if really there are things like laws of thought, they cannot fail to function therein also. A perceptual illusion is no case against me. There a content is given and known, but a later perception reveals its contrary to be the fact at the point in question. Thus, there the content of the previous cognition is cancelled, and the cancellation is determined by the principles of identity and contradiction.

6. The weapons of the adversary are not, however, exhausted. It may still be pointed out that the principles themselves, especially identity and contradiction, are negated by the fact of change. When a thing changes, as it is contended, it is and is not, and in changing it assumes contrary or even contradictory qualities. A quantity of water, for instance, clear and with no definite

colour, when frozen, becomes a hard white mass. In face of such a happening how can the so-called principles of thought prevail in human thinking? Now, the critic is perhaps bringing in something which is wholly irrelevant. Everything determinate in our experience has a definite nature of its own and a distinctive locus of its existence; so a thing or a quality is not to be confused with its other. A tree is a tree; sweet is sweet, and bitter is bitter. When a change actually occurs, it is not that a thing or a quality passes into its contrary, but that in a thing there takes place an alteration in a quality or qualities, quantity and relation—either in some of them or in all. A, for example, possesses a quality, say, Q, and in changing assumes another quality, let us suppose, P. But it does not mean that Q changes into P.

It may nevertheless be urged that the crux of the matter appears there in the situation of a change from existence into non-existence. In the process of pulling down a house, for instance, we are bound to combine the contradictories, being and non-being, and to say that the house is and is not. But it appears, on scrutiny, that being and non-being here do not function as contradictories. Within the process itself it is very difficult to say up to what point the house is and at what point it ceases to be. And this shows that neither being nor non-being is here complete by itself. Each of them is in fact an aspect of, or an abstraction from, a whole situation which can be subsumed under a fundamental conception, namely, becoming, within which they live as elements losing their independent status, and, for the matter of that, their usual incompatibility. The case, however, appears much simpler when the actual change has taken place. There at a place, let us suppose, stood a house. It is now demolished and is no longer, and there is no absurdity involved in this process of destruction. It is only when

we try to get the house in question at the same time as both existent and non-existent that contradiction confronts us. But does not the fact of change itself, it may be retorted, render identity unintelligible? It may be contended that it is quite as absurd that anything may pass into nothing as that anything can come out of nothing. But what is there to warrant that the change from existence to non-existence involves a passage from something to nothing? The truth seems to be that, as, on the one hand, some data really contradictory do not often appear to be so to the thinker concerned, the reason being psychological, so also, on the other, some situation is felt to involve contradiction, owing to our inability to view it in the proper perspective. If we go deeper, we shall find that the passage of an existent into non-existence does not mean a passage into absolute nothingness, and that the situation of such a change can be regarded quite as a case of change of features qualitative or otherwise. A thing given is a complex of qualities and relations, and they come to be presented there as a result of a unique arrangement of the relevant elements. A number of bricks, beams and an amount of mortar, etc., jumbled together constitute a heap, but never a house. Indeed, change implies transformation, and transformation in its turn puts out the fact that some extraneous element or elements have come in to disturb the original arrangement. Change in the formal aspect of a thing then corresponds to an alteration in its material conditions—some or all. The conditions themselves are not none the less destroyed; they in their way enter into a different arrangement collectively or severally. Here, of course, I find myself on the border land of metaphysics, where some such issues as the relation between appearance and what appears, causation, etc., force themselves on my attention. But it is not necessary here to push my analysis

any further ; for the points worked out above can furnish enough matter for the critics to ponder over.

7. A. Let me now turn to the principles themselves and their formulation on which opinions vary no less. To begin with identity. Some take identity as synonymous with exact resemblance for which numerical difference is unimportant.¹ Taking, for instance, two peas occupying two distinct positions in space, if we find that they resemble each other in all respects except in their positions, they are, according to the theory, to be taken as being identical. As one and the same point of space cannot be occupied by two things at the same time, the two peas existing at two distinct positions must be different. The problem then is : if they are numerically different, however exact the resemblance between them in other respects, how can they be identical ? It may be urged in reply that difference in respect of position is indifferent to identity which consists in the otherwise exact resemblance. But this really implies that we can separate the " that " from the " what " of a thing. When we perceive anything, we find ourselves in contact with a definite fact attached to a definite point of space. And, if the sensible objects are distinguished from one another, it is not in virtue of their contents—complexes of qualities and relations merely, but in virtue of both, the content and existence, that and what which in their combination constitute the thinghood of a thing. The artificiality upon which the aforesaid theory is based will be clearly brought out by a consideration of the distinction between two sets of situation, namely, two positions one and the same thing occupies in succession, and the other two occupied by two things at the same time, between which there is the highest degree of resemblance. A, for instance, after occupying the position

¹ Hobhouse, *The Theory of Knowledge*, pp. 115. 117.

X passes on to the position X^1 at which A can be recognized as the same as previously occupied X, and here we fix on the identity of A which is a one-term relation, if it is a relation at all. Obviously then this set can in no way be reduced to a case of resemblance; for there is a relation that involves two terms; the two-ness of the two terms cannot be eliminated by an abstraction from the spatial determinations, and without this elimination we shall be far from what is strictly called identity. Besides, a case of resemblance or likeness can be analysed into a point of identity. Two round tables are alike and their likeness is at bottom due to the same shape known and named under the word "round" self-identical not only as a complex of letters, but also in significance. Thus, a case of what is presented as exact resemblance—the maximum of resemblance will show on examination several points of identity. In the instance cited above, two peas exactly similar are found to possess the same colour, shape, size and weight, and the exact similarity which is stressed so much is only due to the sameness in the colour, shape, etc. But the sameness here represents a case of identity, and, if we are to follow out the formula offered above, we have to say that the identity of the colour of P_1 with that of P_2 means exact resemblance which in its turn presupposes a point of identity for its clarification, and, so on *ad infinitum*. In that case we shall fail to get anything like exact resemblance, and shall feel the necessity for falling back upon identity, showing thereby that identity is more fundamental than resemblance. Resemblance cannot therefore be the core of identity, and far less can it help us in the formulation of the law of identity.

Some state the law of identity in the form, "Once true always true, once false always false."¹ On the

¹ Bradley, *The Principles of Logic*, Vol. I, the chapter on Identity.

face of it, the dictum appears to be wholly tenable. But it may be contended that the truth of a judgment in one context cannot necessarily prevent its falsity in another. In a particular situation I make, for instance, the judgment "There is a snake." Now the judgment may be true in this context, but it will turn out false in the context of a snake-illusion. This objection is really superficial and does not touch the main point at issue. It can be pointed out that there is nothing like a judgment in isolation from its relevant factual contents, floating on our mind's surface, so that we may fix on the selfsame judgment on different occasions. A judgment as a psychical function possesses an individuality of its own, and its individuality is determined, for the most part, by the individuality of the fact or facts referred to. So the so-called identity of a judgment on two occasions or more is merely a semblance of sameness; for the difference of the contents will distinguish the judgments which may appear to be identical in form. Even in the cases of similar or selfsame facts it is not that a selfsame self-identical judgment is repeated. I perceive fire, for instance, in two contexts and make the judgment "There is a fire" on the two occasions. The fire in one context as a particular fire is not the same as the fire in the other, and, though I use the same form of assertion, yet beneath this surface sameness there is a difference as determined by the different individualities of the cases of fire in the two contexts. It does not, however, mean that a judgment is lost into nothingness as soon as it is passed. It, on the contrary, persists in the form of a memory judgment. Now, if we read the dictum under discussion in the light of this analysis, we shall find what the theorists can mean by it to be simply this, that, if a judgment is true it is true, if it is false it is false. It is a truism to say so, but this is not to be, on this score, discarded as trash. All the dictum brings

out is the timelessness of the truth or falsity of a judgment, which follows from the very relation of incompatibility between truth and falsity. The dictum as in itself is an expression of something quite reasonable in regard to judgment in general. But it is too narrow to be taken as the formulation of the law of identity, which does not pertain merely to judgment. To take it to be so is to confuse between a particular application of the law and the law itself.

Some, on the other hand, speak of laws of identity, that are taken to express the nature of identity.¹ Identity is taken by them to be a relation, and the laws of identity, as they contend, bring out three distinct characteristics of the relation, such as transitivity, symmetry and reflexivity. The laws briefly stated stand as follows : (1) If x is r to y and y is r to z , then x is r to z . (2) If x is r to y , then y is r to x . (3) x is r to x . Substituting for these some corresponding concrete examples we get the following : (1) "If lightning precedes thunder, and thunder precedes rain, then lightning precedes rain." (2) If John is the brother of Smith, then Smith is the brother of John. (3) An orange is an orange, or rather an orange is identical with itself. In (1) we get all relevant materials for an inference which will take place on the elimination of "if" employed therein. Anyway, a transitive relation is all that it illustrates and that through the fact of the identity of thunder inasmuch as but for this identity there could be no passage in thought from lightning to rain by way of the relation of precedence. How can we then regard (1) as representing the law of identity? The truth, however, that emerges out of the analysis is that the statement in question purports to show what a transitive relation is like and how the principle of identity functions in an

¹ Johnson, *Logic*, part I, p. 227.

inference within such a relation. Identity and its formulation is here then the necessary presupposition. So (1) does not express a law of identity, but merely an application of the fundamental law of identity.

The second set of statements can be taken up together to represent a case of what is called an immediate inference in traditional logic. It is, however, not relevant to my purpose to consider whether an immediate inference is strictly an inference. I may therefore forthwith proceed to show that there a distinctive kind of relation, namely, the symmetrical, is instanced. The word "brother" indicates the peculiar relation between the children of the same parents, such that any male child is the brother of all the rest. Clearly then in (2) the proposition asserts that the relation between any two sons of the same parents is convertible, and this presupposes identity in more than one way. First, there is the identity of the parents of John and of Smith, and ultimately of the relation "brother" not to speak of the respective identities of the symbols and their significance. So the intelligibility of the said relation presupposes an understanding of the nature of identity as such.

The third formula, however, stands all apart from the first and the second inasmuch as it is directly concerned with identity. But there identity is stated in a form of language in which it appears that identity is a reflexive relation. There are then distinctly two problems, namely, whether identity is a relation, and whether it is a reflexive relation, even if we admit that it is a relation. I shall take up these points later. For the present I should be content to assert that (3) indicates a genuine attempt towards formulating the law of identity, which is presupposed in (1) and (2). The phrase "laws of identity" is then unfortunate.

In some quarter the phrase "laws of thought" is not in favour; a new point of view in logic has brought in a new terminology. Thus "the laws of thought" is replaced by "the principles of propositional determination." There is a departure from the traditional path in so far as the conception of proposition is concerned. A proposition is not, as it is contended, the linguistic expression of a judgment; it is merely what is proposed in thought, and it is upon a proposition that a judgment is passed. Here I have no need to discuss this theory of proposition. Let me go straight to the principles themselves which can be stated in the following way. Taking P as any proposition, the principles are as follows:—

- (1) If P is true P is true.
- (2) If P is false P is false.
- (3) P cannot be both true and false.
- (4) P must be either true or false.

These are respectively called implicative, counter-implicative, disjunctive and alternative. Now neither the theory of proposition on the basis of which the principles are constructed, nor any of the principles themselves can show that a proposition can by its own right be true or false. I cannot here, however, go into the question of truth or falsity of a proposition, which is not very relevant to the point under consideration; for this will take me far away from my theme. It is expedient rather to fix on the forms of the principles and grasp their implications. If a proposition were to be determined by either of the two predicates, "true" and "false," the four principles—one or the other or all of them—would be the obvious implications. But these, important as they are in their proper sphere, cannot be substituted for what are to be called the postulates of experience or laws of thought; for the implicative principle, and, for that reason, the

counter-implicative presupposes the law of identity without which they cannot even be conceived. The disjunctive and the alternative represent applications of the law of contradiction and its implication in the determination of a proposition. There is every reason therefore to go beyond the so-called principles of propositional determination and work out their presupposition—the fundamental laws of thought and state them in articulate terms.

The form of expression, "A is A" is quite significant. Some have, however, taken exception to it mainly on the ground that it is a mere tautology. It is, on the contrary, taken by some others to illustrate identity in difference. Identity in difference, as it is pointed out, and rightly does not explain identity, but in fact presupposes it, and, besides, renders identity unintelligible. It is not clear how an element of difference can enter into the very constitution of identity. There is, in short, a confusion between the identity of a thing as in itself and the knowledge of identity as a content. It may, however, be urged that the identity of a thing is after all identity in difference; a thing is admittedly a complex of qualities and relations; identity is therefore there realized in the differences that make up the complex. No one can doubt the element of truth contained in the contention; it is none the less true that the identity of a thing is not the sum-total of the differences. It is undeniable that a thing is nothing in the abstract, in the sense that there is no room for difference. Some differences are there, and they fall within it. But here there is a peculiarity. When I attend to the colour, shape, size, or any other aspect of an object, I may not be thinking of it (object) as such at all. I may distinguish the differences there only in an abstraction. Or, if I analyse out an aspect of a thing and know it as an aspect of the whole, as in "This table is brown," this piece of my knowledge presupposes my knowledge of the whole

as a unitary self-identical thing; for the table cannot be merely the brown colour, but is in fact a thing that possesses this colour. If the identity of the table were the sum-total of some differences, in the instance cited above, there would be no object proper inasmuch as one of the elements that make it is not taken into consideration there. So, strictly, there can be no such judgment as "This table or the table is brown," or if there be any, it would mean no more than that a shape, size, a weight given in the context in question are together the brown colour. But the first alternative is not warranted by experience and the second is manifestly absurd. The point the neglect of which gives rise to these difficulties is that, when we get a thing given as a whole, we do not necessarily attend to the differences in detail. Each of the differences possesses a content in virtue of which they are distinguished. A, as a thing, is a complex and as such has a definite nature by reason of which it is and is distinguished from its other. The content of a thing is not nevertheless equivalent to a mere conglomeration of some differences. Whether analysis of the differences that go to constitute a thing can be exhaustive is a hard problem. But it cannot hinder me in any way. From the foregoing analysis I can safely assert that, at the basis of the content of a thing though some differences combine, the content itself which is covered by the characteristic "selfsameness" is something more than some mere differences; the content, as in itself, involves no implication of difference either inside or outside it.

Further, we are to note that in knowing anything we do not, in fact, know its identity. There is, however, no gainsaying the fact that the identity of the content in question functions in the process of knowing the content. But the identity as such does not appear there as a distinct content of knowledge. The knowledge of the identity

of a content as a content is always in the form "same as," and this demands an occasion which involves an implication of difference. The act of knowing an identity as a content, in short, coincides with that of recognition. We do not recognize a thing which we meet with for the first time, or when it has become quite familiar. Recognition, truly viewed, marks the midway between our first experience of a thing and its becoming familiar. Knowing a thing to be the same has a necessary reference to our past experience of it, the past occasion and the present context, the past occasion and the present one furnishing the difference against which the identity of the content in question maintains itself, and the difference becomes, the condition of our knowing the thing as the same definite content. But the difference there does not enter into the identity itself. It may now be urged that there may be identity between two things in a certain respect, while they may differ in many others; we may get, as we are told, identity between two things in respect of colour, for instance, though they may differ in shape, size, and in many other ways. Now it ought to be clear that the identity that we get there is not an identity between the things in question, but merely the identity of the colour under consideration, which is made articulate as definite content of a piece of knowledge by the difference of the contexts in which it appears. As I have already shown, we cannot have identity even by the maximum amount of resemblance; for identity demands total elimination of the two-ness of the relevant two facts which resemblance requires. One cannot speak of two things, and, at the same time, of the identity of the two. Identity in difference is then a misnomer.

It may now be asked: What about the difference over against which identity as a content maintains itself? It has just been stated that the relevant difference does not

enter as an element into identity itself; it is nevertheless no difficulty in my way. The difference of occasions or contexts is only epistemic and does not affect the content—identity in its constitution. When a thing is known in two distinct contexts, there is apparently a difficulty. A, for instance, appears in my experience at two points, namely, x and p in succession, and the question is whether the difference in the contexts effects any alteration in the content of A. Here I cannot but appeal to experience. We, in fact, find that in the cases wherein the identity of a content is known, the contextual difference is indifferent to the content in question, but is relevant only as a condition of the knowledge of the identity of the content as a content. It may seem that I am making a division between the spatial position of a thing and it as a content. Be it far from me to intend any such division; for a thing is its that and what together. There is no doubt that we can think of either of these in an abstraction which represents no fact. But we cannot really separate between the two in actual experience. Roughly speaking, whatever is existent is spatial; the existent must occupy a particular point of space. It does not, however, mean that it has to be rigidly confined to the particularity of any particular point. There are obviously far too many exceptional cases in which some things, *e.g.*, house, tree, etc., are found to be so much as rooted to the point where they exist. But, if we look closely into the matter, we shall find that this rooted-ness is not due to the nature of a point of space, but rather to the constitution of the thing in question. A thing may change its position; it need not on that account change its identity, and this follows from the peculiar nature of space itself.

The question that now crops up is whether identity is a relation. Identity may appear to be so from the

view-point I have tried to establish, namely, that identity is known as a content only over against the difference of two or more contexts in which a thing is known in succession. The truth that is implied therein is, however, this, that there is a relation, no matter whatever it is, between the contexts themselves. But the identity that is known as a content is fixed on in the thing known and has no reference whatsoever beyond the content given at the last point, in so far it is a content known. Moreover, it in its turn presupposes the identity of the thing, that functions in the background and renders recognition of the thing as 'the same as' in the situation described above.

It may, however, be argued that, though identity is no ordinary relation, yet it can well be regarded as a reflexive relation.¹ To begin with, relation itself, whatever the details regarding it, to say the least, must involve at its simplest two terms. Identity to be a reflexive relation must be nothing short of the identity of a content, but cannot be identity as a content, in which case identity is adjectival to the factual content fixed on. There is then clearly only one term. But one-term relation is not intelligible and outrages our notion of relation, which carries with it a sense of plurality of terms related. It is absurd to think and speak of a thing as being related with itself.² There is, however, a way in which we can express the identity of a thing in a relational form of language. Thus, we often say, "A is identical with A," or "X is identical with X" instead of "A is A" and "X is X." In so far as the propositional form is concerned, the two A's connected by "is" are distinct, and, such being the case, we can well posit a relation between them; but the relation, in the ultimate analysis, turns out to be

¹ *Vide* Discussion by R. F. A. Hoernlé, *Philosophical Review*, Vol. XLIII, 1, 1934.

² Discussion by Louis Kattsoff, *op. cit.*, pp. 88-89.

exactly the relation between the two points at which A appears. But there identity as a relation, far less as a reflexive one, is, as I have shown above, out of the question ; for the identity that is known there as a content is something unitary. If we, however, look beyond the mere language employed into what we intend to express through the propositional forms, " A is A " or " X is X," we shall find that it is only the identity of a single content, A or X, that is sought to be expressed therein. I now find myself in a position to formulate the law of identity by saying that all that it means is that everything determinate in our experience possesses a definite content which indicates what it is and in virtue of which it is distinguished from its other, and, further, that the identity of a thing is known as a definite content only with reference to the difference of the relevant contexts in which the thing in question appears in succession.

B. The principle of contradiction is expressed in more than one way. Some of the forms are the following : A cannot both be and not be, A cannot be both A and not-A, a proposition cannot be both true and false. As I have already pointed out, the postulates cannot be the principles of propositional determination—no matter in what precise sense the term " proposition " is taken,—nor can they be concerned only with existence and non-existence. To take them to be so is to narrow down their function, which is quite extensive, to a particular case of their application. So here also as in the case of identity let me go straight to the meaning that is sought to be expressed in and through the forms of statement mentioned above. Now, fixing on the first statement, we shall find that there the law of contradiction is expressed in a very cumbrous and misleading way. Not-A means after all everything else except A. Thus taking A to stand for " man," we find that not-man must mean among countless

other things a particular colour, shape, size, except, of course, the individuals called man. In that case we can scarcely make anything intelligible out of the statement that A cannot be both A and not-A, for not-A means merely an other of A, and the most that we can get out of the statement is that differents are differents, or that A is A, which is the law of identity. The relation of otherness between A and not-A indicates that A and not-A are distincts or differents. There is, however, no opposition between distincts or differents *qua* distincts or differents. On the contrary, they are to coexist to be differents or distincts. The existents are there as distincts and known to be so, but they appear discrepant only when they claim the same status as contents of our experience. But this claiming cannot be conceived as any physical contending. The claim is really ideal, and the reciprocal repulsion between the claimants is felt only in an attempt in thought to combine them. It is no part of the task of logicians to catalogue contraries and contradictories. The spatio-temporal order itself can supply the principle of individuation within a certain range, but it will not cover the whole field of the experienced. The determination of incompatibles actual or possible in this or that sphere constitutes a distinct theme which is not relevant in any logical investigation. So, I, without worrying about it, concern myself directly with the general principle of incompatibility. That there are incompatibles is a matter of common experience and this is sufficient for our purpose. I can then express the law of contradiction thus : Incompatibles cannot be combined.¹

I shall do well to discuss in this connexion a point which is apt to provoke controversy. The principle of contradiction is sometimes extolled as the supreme law

¹ Cf. Bradley's view.

of thought of which the other two are supposed to be mere derivatives. I cannot better try to settle the issue than by considering the exact relation between identity and contradiction. There is no difficulty in so far as differents are spread out as contents of our experience, and, as has already been shown, discrepancy arises when they are taken to enjoy the same status in the structure of experience. This clearly brings out the presupposition of contradiction, namely, that differents to be discrepant must each possess distinctive nature of their own, and it is out of this that opposition ensues. Thus, the principle of contradiction presupposes the operation of that of identity. The former may be, in short, regarded as an aspect or rather an implication of the latter.¹ Identity points to a content as in itself, whereas contradiction brings out its specific negative relation to its contrary.

C. The principle of excluded middle is usually taken as one which is solely concerned with judgment, and it is taken to mean that a judgment is either true or false and that there is no *via media* between the two ways of characterizing a judgment. So expressed the principle appears to be narrow, and there seems to be nothing except prejudice to justify this limitation. The principle of excluded middle is, on analysis, found to be the necessary implication of that of contradiction. Whereas the latter expresses the fact of incompatibility and the relation of mutual exclusion between incompatibles, the former shows forth the implication of the relation between incompatibles, namely, that there are no intermediaries between them ; in other words, it presents incompatibles as strict alternatives.

It may now appear that the law of excluded middle is a piece of disjunction the form of which is "either or."

¹ Cf. R. L. Nettleship, *Philosophical Remains*, p. 152.

Let me take, for argument's sake, the excluded middle to mean that a judgment must be either true or false, and see what follows. In a disjunction some alternatives which are themselves incompatibles in relation to one another are proposed with reference to a subject, and in and through the proposition a quality which indicates a sphere of discrepant is taken to be affirmed. All discussion as to the significance of disjunction apart and accepting the view just indicated, I ask: What is the quality that is affirmed through "either or" as involved in the statement of the principle of excluded middle? The principle, even in the form in which it is expressed, cannot be taken to refer to any common quality which is determined in some discrepant. When we say, for instance, that a thing is coloured, we cannot possibly mean that colour in the abstract is a quality. Colour, on the contrary, to be colour, must be a definite colour; it is in fact red, green or blue, or any other determinate colour. In short, colour as a common quality cannot be physically separated from the particular colours. (Can we, in the face of such facts, then say that "true" and "false" are likewise determinations of a common quality? It is difficult to say "yes"; for "true" and "false" cannot be viewed as determinations of some definite common quality. The principle cannot be made to assert a common quality even if it is interpreted with reference to every element in the universe; for the fact of everything requiring reference to every other thing cannot constitute a quality. On the contrary, the truth is that the principle of excluded middle is not concerned directly with the world at large or with the elements *qua* elements contained therein in relation to one another; it is relevant only in the sphere of incompatibles.

It may, however, be argued that "true" and "false" bring out, in their way, something common, namely,

“assertion.” But then what is this assertion itself? There should be no confusion between assertion and assertum, and, if assertion is an act of thought that comes within the purview of truth and falsity, it cannot be anything short of judgment. But where is disjunction in the excluded middle? In a disjunction a quality which is a sphere of the alternatives proposed, is attributed to a subject. So, in the principle, in its narrow sense, “true” and “false” are alternated with reference to judgment, and the problem that arises is: What is the common quality which is determined as “true” and “false”? There is obviously none. It is therefore futile to make an attempt to show that the principle of excluded middle is an actual case of disjunction. All the more it will appear so if we take disjunction not as a definite form of knowledge, but rather as an expression of its limitation in a particular universe of discourse, and, for the matter of that, of our ignorance. Strictly the excluded middle expresses no hesitation on our part; it simply embodies what we intuit in the course of our contemplation or in an introspective analysis of an aspect of experience taken as a whole. I can therefore say without fear of contradiction that the principle of excluded middle goes beyond disjunction inasmuch as it points to the possibility of disjunction by positing the disjunctive world through the articulation of incompatibles as strict alternatives.¹

8. It is worth while now to consider an interesting question in this connexion, which is whether the postulates themselves reveal anything of the fundamental structure of Reality. Some thinkers are very quick to deduce some essential characteristics of Reality from the postulates by way of implication.² But the procedure involves

¹ Cf. Bradley's view.

² Bosanquet, *Logic*, Vol. II, pp. 210-13.

insurmountable difficulties. First, what is there to guarantee that there is Reality? Secondly, granting that there is Reality beyond the reals empirically given, it is by no means easy to get at some aspects of Its nature only by a consideration of the three laws of thought. There is nothing esoteric about the reals that are given, and the reality of those is tested on the basis of given-ness. There is therefore no difficulty in so far as they are concerned. But the transition from the reals to Reality, that is sought to be made, is rather abrupt, and is, in fact, effected through imagination only. It may, however, be argued that the said deduction is all a matter of self-evidence and intuition of the implications of the laws themselves. But the difficulty cannot be effectively solved by an appeal to intuition or self-evidence; for intuition or self-evidence is more often than not merely a cover over our ignorance. Reality and Its nature constitute the crux of all philosophy, and there is no short cut to It. Philosophers of the past ages wrangled over the issue, and it is still before us with its baffling freshness. It is only a few who are philosophers, and even among them there is a sharp difference of opinion on the point. If we, nevertheless, find enough data to go upon for a philosophy of Reality, we have to begin from the very beginning. It is imperative from that point of view to analyse out the differentia between the two cases in one of which the notion of Reality is operating and in the other it is lacking; in other words, we have to take our stand on experience—the situation of thought and fact in their correlation and arrive at the notion, working patiently at whatever data are at our disposal. The procedure will, in short, coincide with a search metaphysical *par excellence*. So it can be safely asserted that a reflective analysis of this or that postulate or law of thought cannot secure for us what is to be reached as the conclusion of a metaphysic. It hardly needs to be

mentioned that metaphysics is a hard discipline inasmuch as it is intellectual construction about what is not so tangible as the tangled mass of facts of our ordinary experience, and we cannot propound a metaphysical theory on the basis of some flashes of intuition, as they may be called, of the so-called implications of the laws of thought as they come into consideration in the course of a psychological analysis of the forms of knowledge.

9. In some quarter, nowadays, the limitation of the number of the laws of thought to three is ridiculed.¹ It is contended that, if the laws of thought are really laws, they cannot be merely the traditional three, namely, the law of identity, of contradiction, and of excluded middle. There is, in fact, presented quite a list of laws and principles that are said to be involved in thinking. But the critics will not do well to forget one point, namely, that there is after all a distinction between a law or principle that operates in a particular knowledge-situation only and what are to be regarded as postulates or fundamental laws of thought, which are universally operative in knowledge or thinking as such; and keeping clear this distinction before mind, I can challenge the critics to add a fourth to the traditional three. Besides, I can take any one of the so-called fresh principles² formulated to supplement the traditional scheme of laws of thought, to show that that is to be called a principle in a sense quite different from that in which identity or contradiction is a principle of thought. I have often spoken of the laws of thought as principles, but I ought to say, and clearly, that I have all along employed the term "principle" with reference to them in the sense of a postulate. Let me take by way of illustrating my point what is put forward as the principle of the syllogism and what is set forth

¹ Stebbing, *A modern introduction to Logic* (first edition), p. 469.

² *Ibid.*, pp. 472-73, and Johnson, *Logic*, part I, p. 29.

as the principle of deduction which are stated as follows :
“ If P implies Q, and Q implies r, then P implies r ” ; “ If P implies Q, and P is true, then Q is true.” Here I need not enter upon any discussion on the fundamental nature of the syllogism and the distinction between the syllogism and deduction. Suffice it to say that the principle of the syllogism as stated above is not a principle independent of the laws of thought ; that rather presupposes directly the law of identity and the other two by implication. All that is done therein is that the fundamental structure of the syllogism is abstracted and generalized and expressed in the form of a definition with the help of the symbols, P, Q, and r ; so also with the principle of deduction. The principles undoubtedly serve as good answers to the questions : What is a syllogism like, and what is deduction ? But they scarcely represent anything which is in addition to the process of thought involved in a piece of syllogizing or in the process of a deduction. So it is clear that the principles of the syllogism and deduction have to be called principles in a very loose sense. At all events, these so-called principles of the syllogism and deduction cannot be extended beyond the sphere of the syllogism and deduction ; they will fall far short of what are to be strictly regarded as the fundamental laws of thought or postulates of knowledge. Each of the remaining principles proposed – the principles of tautology, commutation, association, etc., can be similarly analysed and shown to be a case of definition of the form of thought or knowledge it is supposed to deal with. There is therefore no reason whatsoever why one should cry down the traditional three laws of thought, though they cannot be adopted altogether in the forms in which they are found in some of the treatises on traditional logic. The traditional three laws of thought are after all three postulates presupposed even by the very act of denouncing them.

CHAPTER VII

MODALITY AND JUDGMENT

1. Some make a distinction between pure and modal propositions.¹ Whereas the pure propositions are taken to assert simply agreement or disagreement between the subject and the predicate, the modal are taken to express the mode in which the subject agrees or disagrees with the predicate. Thus, " Brutus killed Caesar justly " is put out as an illustration of a modal proposition. Now fixing on the formulation of modality offered, let me see whether modality as formulated is exemplified in the proposition given above. In grammar an adverb is a word or term that expresses qualification of an action or activity signified by a verb word. So *prima facie* there would be no difficulty in taking the " justly " as an adverb qualifying the verb " killed." As a matter of fact, in so far as grammatical analysis of the sentence is concerned, the " justly " is taken without the least hesitation as an adverb, the significance of which can be expressed also in an adjectival form of the word, taken to qualify the noun-form of the relevant verb. Thus, we can well have " Brutus's killing of Caesar was just " in place of " Brutus killed Caesar justly." Before commenting on this proposition I shall do well to consider a seemingly analogous proposition, such as " The tram car is moving slowly " which can be put into the form " The movement of the tram car is slow." Here in the original proposition the " slowly " is an adverb that qualifies the movement of the tram car, and in its altered form the predicate is " slow,"

¹ Whately, *The Elements of Logic*, p. 42.

an adjective which qualifies the movement of the tram car. But, despite the difference in the grammatical forms, in and through these propositions we give expression to our assertion of the selfsame fact, namely, how the tram car moves. What makes it possible for the proposition to admit of transformation in form is, not only this assertion, but also, and to a greater extent, the fact that the adjective "slow," and, for the matter of that, the adverb "slowly" brings out a characteristic, nay, a self-identical characteristic of the movement of the tram car in question. If modality mean merely such modes of actions or activities, the centre of gravity is shifted from proposition to fact, inasmuch as modality would then be all a matter relating to the factual contents of propositions expressing activities, and there would be as many types or kinds of modality as there are modes of activity. Now I am in a better position than otherwise to consider the constitution of the proposition "Brutus killed Caesar justly" and its implication and see whether it represents a case of modality as indicating a mode of agreement or disagreement between the subject and the predicate, and, in the ultimate analysis, a characteristic of the factual content of a proposition. What exactly is meant by "Brutus killed Caesar justly" can be expressed in the form "Brutus's killing Caesar was just." Then the point that demands our immediate attention here is whether the adjective "just," and, for the matter of that, the adverb "justly," convey any part of the constitution of the fact in question *qua* fact, which is not fully expressed by "Brutus killed Caesar." Of course, here may be asked questions as to how he killed, how he plotted and contrived to get Caesar into his grip, what weapons he used to that end, etc. And the answers to these questions will furnish some details in regard to the actual situation of killing and the specific mode of killing. We cannot, however, get in the fact of killing

anything objective corresponding to "just" or "justly." Were it the fact that a feeling of justification in Brutus's mind was accompanying his act of killing Caesar, we could not possibly conceive that feeling as a constituent in the fact of killing that occurred there, although we can well take the feeling as what really urged him on to that act. But this feeling of justification in Brutus's mind in the act of killing is, however, another matter, and has nothing to do with the import of the proposition under consideration. What we have to grasp for our part is this that in the proposition the historical event in question is asserted, and on it a verdict is given. So really the "justly" is not an adverb in the ordinary sense of the word, though it is to be taken to be so in accordance with grammatical usage, and it is this usage that beclouds a logical issue of vital importance. Anyway, the fact is that "Brutus killed Caesar justly" is not a simple proposition, but a compound one which is found, on analysis, to be composed of two propositions that are distinct, namely, "Brutus killed Caesar," and "Brutus's killing Caesar was just." One is a proposition or judgment of fact—a man's particular action, and the other a judgment upon that act. There is evidently a distinction between a judgment of, or about, a fact and a judgment upon an action. The former is a form of knowing a fact, and the latter illustrates the mode of expressing one's approval or disapproval, or, in short, moral valuation, of an act of a person who comes within the purview of ethical norms. Strictly then "Brutus's killing Caesar was just" is not a judgment in the sense of an intellectual act, and, for that matter, not a proposition, but simply a sentence in which a judgment of moral valuation is expressed. Nevertheless, it may appear to be a secondary proposition, which, according to Johnson, is a proposition about another proposition. Thus, if *p* is a proposition, we are told, we can get a secondary

proposition in "p is true"; or to take a concrete example, "Soul is a substance" is a primary proposition, and "'that soul is a substance' is an intuition" is a secondary proposition. Whatever the meaning and theory of proposition and whatever the answer to the question whether a so-called secondary proposition is a proposition in the sense in which a primary one is a proposition, it is not in the least difficult to gather that a secondary proposition, if we can at all so call it, is always a proposition that is directed to a primary one. Now to revert to the point at issue, we find that "Brutus's killing Caesar was just" cannot be taken to be directed to the proposition "Brutus killed Caesar." This will be made clearer by a consideration of the difference between "Brutus's killing Caesar was just" and "that Brutus killed Caesar is just," or "Brutus killed Caesar is just." In "Brutus's killing Caesar was just" the valuation indicated by the "just" attaches to Brutus's act of killing Caesar, whereas in "that Brutus killed Caesar is just," or "'Brutus killed Caesar' is just" the adjective "just" is applied to the proposition which is primary, namely, "Brutus killed Caesar." But a little reflection will show that the proposition "That Brutus killed Caesar is just" is void of sense, and is consequently no proposition at all inasmuch as a moral qualification is always qualification of a man's voluntary action and never of an assertion or a statement of that. At all events, if we here take the "justly" to illustrate a case of modality, we can scarcely find modality to mean a mode of an action or activity. Modality will then consist in moral valuation and apply to actions and will be wholly irrelevant in the sphere of propositions or judgments.

There is yet another sense in which modality can be taken. A proposition is often analysed out into three distinct parts,—subject, predicate and copula, and while the copula is taken to express a relation by way of agreement

or disagreement between the subject and the predicate, modality is taken as a temporal determination of the relation. The whole matter of modality then turns upon the tense of the verb "to be" which functions as the copula. Thus, we are told that the propositions "The sun did rise," "The sun is rising," and "The sun will rise"¹ show forth the three different types of modality. The arguments that are put forward in support of the theory are that the tense is no part of the predicate, but is really a function of the copula, and that it is by overlooking this point of importance that the propositions "The sun did rise," and "The sun will rise" are reduced to their so-called logical forms, "The sun is that which did rise," and "The sun is that which will rise," respectively. It is undoubtedly true that the tense cannot be taken apart from a verb, and it was recognized ages ago by Aristotle, the founder of the science of Logic. "A verb is that," as he puts it, "which in addition to its proper meaning carries with it the notion of time. No part of it has any independent meaning and it is a sign of something said of something else."² On a closer examination, we shall find that a verb has three distinct functions to perform; first, it has its proper meaning, *i.e.*, it signifies something factual and is that way substantival,³ secondly, it indicates the temporal determination of the content in question, and, thirdly, it conveys the act of assertion or judgment. For instance, in the judgments, "The dog is running," "The dog did run," the verbs "is running" and "did run" express respectively that the content in question is a present fact and that the content is a past event. It may, however, be argued that the copula—a form of the verb "to be" is an exception to what holds

¹ Mill, *Logic*, pp. 59-60.

² *De Interpretatione*, 16b, 3.

³ *Ibid.*, 16b, 20.

true of all other verbs, and that it is the copula which is affected by the tense and has no bearing upon the content asserted. The main point that is to be considered in this connexion is : What is the exact function of the copula ? If the copula is the characterizing tie between the subject and the predicate in a proposition, and, if the constituents of a proposition are some factual elements, or, in other words, if a proposition is about some facts, then tense, and, for that reason, modality which is identified with it, pass forthwith into the sphere of facts, signifying the reality of this or that factual relation without any direct reference to any knower. If, on the other hand, the copula is taken as the "assertive tie," that is to say, if the copula is taken as the expression of the act of asserion or judgment it will be very difficult to say that the copula is affected by the tense inasmuch as one cannot make an assertion or a judgment which as an assertion and as a whole belongs to the past or to the future. Though a fact asserted may be in the past or in the future, yet the relation that the assertion posits between it and the subject concerned is immediate, assertion being consequently always in the present tense. But then how can we get such forms of assertion as "The sun was rising," and "The sun will rise" ? Indeed, in the instances, the form of the copula is visibly altered by the tense in which the verb is taken ; but it is not that the act of assertion is affected in any way. It is for this reason that in traditional logic the copula is always taken in the present tense and is disentangled from the anomalies of grammatical forms ; and, what is more, the copula is a device of logicians and its function is conceived to be more logical than grammatical. Reduction of propositions to the logical form " S is P " is nowadays discarded by many as being very awkward. It has nevertheless its use and importance and that in view of the fact that in and through it we can show better

than in any other way the form and function of thought expressed in a judgmental sentence. Thus, "The sun was rising" is reduced to the form, "The sun is that which was rising." One may be at pains to show the absurdity involved in this reduction, namely, that "that which was rising" may mean many things rising other than the sun and that the identification of the sun with any one of those things cannot be the meaning of the original proposition, nor can predication of any one of them of the sun be expressed therein. Difficulties like these can be imported if we choose to get them in. But there is really no such need. If we do not fix on "that which was rising" by itself, but take it as a part of the whole sentence, we shall very easily get at the meaning intended; for the "that" there stands for the sun itself, the "rising," expresses a feature of it, the "was" indicates the fact--the sun rising to be a past one, and the "is" implies the act of assertion. It is now evident that, if modality is all a matter of tense, it is once again found to relate to facts as contents of judgment and not to judgment or assertion as a function of thought, though it cannot be denied that a judgment as a psychical happening can be fixed on as a fact with temporal determination. In our everyday life and experience we give expression to judgments, that are made, in sentences. This, however, does not amount to saying that we first judge and then look for appropriate language in and through which to express the judgment. Anyway, when in a judgmental sentence which is a proposition, a verb is employed, it indicates not only something said, but also expresses the act of saying something. So in "The sun is rising" "is rising" is the verb, being the form of the progressive present tense of "to rise." So also in "The sun was rising" and "The sun will rise," "was rising" and "will rise" are the verbs, and it is clear that there it is the verb "to rise" that undergoes

modification, and not the copula ; for the copula being the expression of the act of judgment must be always in the present tense of the verb " to be " inasmuch as a judgment must fall within the immediacy of the subject's consciousness in spite of the fact that the judgment in question may be directed to the past or to the future. The main point that we come to is that the tense of the verb used in a proposition does not touch the copula, but points rather to the temporal determination of the factual content of the judgment ; and modality, if it is taken to indicate such temporal determinations, turns out after all to be a matter that relates to facts.

2. Usually, however, modality is taken to mean modes, or rather degrees of certainty, and, in accordance with it, propositions are divided into problematic, assertory and apodeictic or necessary. The problematic, assertory and apodeictic are further taken to indicate gradual incorporation of a content with the understanding.¹ Thus, the problematic, as it is contended, expresses a degree of certainty far less than that expressed by the assertory, and the necessary involves the maximum amount of certainty ; in other words, the three kinds of propositions in the forms, S may be P, S is P, and S must be P, are taken to express respectively possibility, reality and necessity.

It is, however, pointed out, and rightly so, that strictly there is nothing to draw the assertory apart from the apodeictic so far as the degree of certainty expressed or with which they are asserted, is concerned. Who is there on earth to say that " It is raining " is less certain than " It must rain " ? If, in the assertory, we do in fact assert something we are immediately aware of, and, if that is directly given in our experience, it is clear enough that the assertory is asserted with absolute certainty and is scarcely

¹ Kant, *The Critique of Pure Reason*, tr. by Meiklejohn, p. 77.

to be taken as being inferior to the apodeictic in point of certitude.

A particular metaphysical theory may, nevertheless, be brought in to back up the division, especially to save the necessary and to prove the inferiority of the assertory. It may be pointed out that the real which is the content of the assertory is asserted on its being simply given and is never known as grounded. So, when we pass from the assertory to the corresponding necessary, we in fact pass from a view of a fact in isolation to one in which it is known together with its conditions. It may be that there are in reality no isolated facts and that everything is linked with everything else. As, according to the theory mentioned above, the absence of the conditions or grounds, or rather the absence of the knowledge of them is indicative of a lack of necessity, the assertory and the problematic are consequently to be ranged together, and there would practically be nothing to distinguish between the two. Further, if certainty is to mean necessity which is equivalent to being grounded or conditioned, there can be no question of certainty, in the sense elaborated, in regard to the assertory and the problematic as the contents asserted therein are not known as being grounded or conditioned; or, if there be one, that can scarcely be as to any degree of certainty being involved in them. Thus we see that the aforesaid threefold division of propositions breaks down; for there we cannot progressively proceed from the problematic to the apodeictic.

It is, however, possible to view the matter from another angle. It is a commonplace of logic that the modal arrangement of propositions is based upon the notion of degree of certainty. Thus the problematic which is taken to assert logical possibility is placed at the base and the apodeictic at the summit of the modal arrangement of propositions. But, whatever logical value

the arrangement may have, it can by no means be the fact that our knowledge or experience begins *in vacuo*; it begins with contents that are given and articulated in the course of its development. So the first judgment a child may make is not only affirmative, but also assertory, showing thereby that its contact with the reals that come as contents of its experience is far more primary than whatever forms of knowledge are constructed on the basis of it. In short, the notion of possibility is far more complex than that of reality. Whereas the latter requires a situation of some fact given to consciousness and implies immediate awareness or knowledge of that, the former requires the latter on the basis of which alone the actual that is known in a context is conceived through an imaginative elaboration and expected in any other context; something is there constructed through constructive imagination and viewed reflectively with reference to the nature of the actual that is known. So also with the apodeictic. It is contended that in passing from the assertory to the apodeictic we really pass on to possess the highest degree of certainty by way of necessity, the content in question being found not in isolation, but connected with its proper conditions. The point that now forces itself on our attention is: however great our zeal for the necessary may be, at all events, we stand on the assertory; for it involves a content given. The content in question, however, isolatedly given at first, cannot get its certainty reinforced even when its full conditions are found out. I perceive, for instance, the table before me to be brown. The "brown" in the table in the context is given to me and immediately apprehended. I may later find out the conditions physical, physiological, psychological or otherwise, that together give rise to the colour there. Obviously this way I know much more about the content than previously. All this

nevertheless cannot add to the certainty with which the colour was originally given to me. There is then no occasion whatsoever for any such proposition as "The table must be brown." The conditions of the colour were already working, and without them the colour could not be given. But my knowledge of them all does not, as a matter of fact, enhance the certainty with which the content was first known. Where is then the necessary? There is actually no passage from "The table is brown" to "The table must be brown." Clearly then by way of searching out the conditions of a content that is immediately given and known we cannot get near to what is viewed as apodeictic. Thus the threefold division of propositions according to modality once again breaks down, revealing the fact that the assertory stands by its own right and that it is on the basis of the assertory that a statement of possibility and necessity can be made.

3. Even those who uphold the threefold scheme are found to differ widely among themselves on the value and function of modality in judgment. It is often debated whether modality affects only the copula or the content of a judgment. "The modality of judgments," says Kant, "is a quite peculiar function, with this distinguishing characteristic, that it contributes nothing to the content of a judgment (for besides quantity, quality, and relation, there is nothing more that constitutes the content of a judgment), but concerns itself only with the value of the copula in relation to thought in general."¹ Here then the whole matter will hinge upon what exactly is meant by the word "copula." Ordinarily, particularly from the traditional point of view, a proposition is analysed into three distinct parts—subject, predicate, and copula; and the copula is taken as expression in language of the

¹ *The Critique of Pure Reason*, p. 76, tr. by Meiklejohn.

act of predication. Now, if we fix on the import of the copula and maintain that it is the copula that is affected by modality and not in the least the content of a judgment, then it follows that modality affects only the form of a judgment. Thus, in "It is raining," "It may rain" and "It must rain," for instance, the copula, we may be told, has visibly undergone some change in the problematic and the apodeictic. It goes without saying that this change, though lingual, points to a corresponding change in the act of assertion which the copula represents. Now the problem that confronts us is : how can judgment as a specific function of thought admit of any change in the two cases and yet remain self-identical? To some the issue does not seem to be very difficult of settlement. They in their way identify judgment with belief and make modality all a matter of quantity of belief,¹ so that in the problematic there is the least degree of belief, whereas the apodeictic indicates full belief, or rather the maximum of belief. But here the difficulty we have to face first is this : there is in fact no difference in the degree of belief expressed by the assertory and the apodeictic ; but then how are they to be taken into the modal variety of propositions? This is a difficulty we cannot make light of, and it has in fact been recognized even by the exponents, some at least, of the theory under consideration. And the difficulty is sought to be overcome by an alternative theory. It is suggested that "the belief with which an assertory judgment is entertained is full belief"; otherwise there would be no difference between it and the problematic. If there is any distinction between the assertory and the apodeictic—there is, as it is contended, a clear-cut distinction—it is to be conceived in the light of the quality of belief expressed in each of them. The upshot of all this

¹ Venn, *The Logic of Chance*, p. 313.

is that belief is something which can change not only in quantity, but also in quality. Now the fact that we have to notice is that the contention combines two distinct theories of modality, one with reference to the relation between the problematic, the assertory and the apodeictic taken together, and the other strictly about the distinction between the assertory and the apodeictic. But this is nothing less than muddling the whole matter of modality.

Besides, there are two points at issue, which need to be cleared up. First, can there be quantitative measurement of belief? Secondly, how far can belief *qua* belief change in quality? To begin with the first, if belief is nothing short of judgment or assertion, it is hard to see how there can be varying degrees of belief. We may make a judgment or no judgment, and it is not that there is a halfway house. Why not?, it may be retorted, a look into the scale of knowledge, which begins with doubt and ends with positive affirmation, will show how we reach full belief by some stages. Whether this scale represents the actual normal course that is presupposed in our knowing the assertory is another matter; the point, however, that comes immediately to our notice is that, whatever the scale of knowledge and the steps one has to take in a situation of doubt to reach to the positive fact that is in view, it can be definitely asserted that an element of doubt enters our attitude when we cannot get at the content in question positively and assert it assertorily. If we doubt anything we cannot at the same time believe it; for belief can take shape only on the total elimination of doubt. Moreover, the notion of a quantitative measurement of belief which is an intellectual function, no matter what it is in its constitution, is a superstition that has its roots in our ignorance of the proper limitation of the category of quantity. We can get more or less of something

physical, or quasi-physical (*e.g.*, a sensation), but in the sphere of the psychical the notion of quantitative measurement is inappropriate.

Now to take up the second point. The assertory as well as the apodeictic are entertained with full belief; there is none the less a difference between the two, and this difference is to be accounted for by the difference in the qualities of the beliefs expressed in the two cases. On the face of it, the theory may seem to be all absurd; for, as a psychic function, there can be no difference between one belief and another, though as psychological existences or happenings with temporal determinations they are not only distinct, but also different in view of their differing contents.

It may, however, be contended that the copula in the apodeictic expresses a function of thought altogether different from that expressed by the copula in the assertory. We may be asked to make a distinction between the psychological and logical copula, and may be urged to recognize the psychological in the assertory and the logical in the apodeictic.¹ Thus in "The street is wet" the copula indicates the act of assertion which is psychological. But, in "The street must be wet," if there is anything like logical copula, that is evidently "must be"; for we can get the psychological copula by reducing the proposition to its logical form. In that case; as it appears, the psychological copula and the logical are not only not opposed to each other, they are also found together in the apodeictic. It may now be retorted that this coupling of the psychological and the logical copula proceeds out of a misconception; for it is verily their distinctive functions that keep them apart and make for whatever difference is there between the assertory and the apodeictic. The

¹ Bosanquet, *Logic*, Vol. I, pp. 364-365.

point that is sought to be made is this, that the copula in the apodeictic expresses "grounded necessity" and that its logicity consists in this grounded necessity. Now it is to be seen what is precisely meant by grounded necessity. Obviously it may mean either of two things, or the two together. When a fact is fixed on and its conditions are found out, the fact is then known as conditioned. But the situation of a fact given, or that of knowing it and its conditions is different from the situation of knowing a fact on the strength of its full conditions given as the data, inasmuch as in the latter the knowledge of the conditions presented leads by way of necessity in thought on to the knowledge of the fact in question. This necessitation is not, however, something occult in thought-function; it is, on the other hand, to be understood in the light of the necessity between the conditions and the conditioned, which is best expressed in the form of a hypothetical. Necessity in facts implies effectuation, and necessity in this sense is also found to be operative in the realm of thought, because the psychological are also facts. So an act of thought or a piece of knowledge does not stand in isolation in our mental life, but is, as a matter of fact, determined by the relevant emotions, ideation, and other particular thoughts. Thus, in the realm of facts, both physical and psychological, necessity reigns in the way of the relation between facts—one and the other, or some others—as cause and effect, conditioned and conditions. There is nevertheless room for grounded necessity, and that we find only in a situation in which a piece of knowledge is based upon another. What is called grounded necessity is in reality grounding through necessity not between two pieces of knowledge in question *qua* knowledge, that is to say, between two arid abstractions, but between the content given and that which is asserted on the strength of that. This is, however, not to say

that there is a separation between a knowledge as an act of thought and its content. On the contrary, the very term "content" means a fact that is known or knowable. So the contribution of a content towards a situation of grounded necessity, or rather mediate knowledge, brings out the truth that the grounding there is objectively determined. Whatever the details regarding this point, given a piece of grounded knowledge, we can have a contrast between it and another piece of knowledge *i.e.*, a piece of knowledge the content of which is given in our sensible experience and directly fixed on and which does not require the aid of any other in order to reach to it. We can say, for instance, that there is fire on the yonder hill because of smoke rising from there. We perceive the smoke rising, and this our knowledge is immediate, in the sense that the content in question is given, whereas our knowledge that there is fire over there on the hill is mediate. We do not perceive the fire over there; we nevertheless posit the fact on the ground of the smoke presented. Is it then that the difference between the copula in the assertory "There is smoke on the hill" and that in the proposition "There is fire on the hill," or "The hill is fiery" is such that the former copula is psychological and the latter logical? Granted that there is a sharp distinction between the psychological and the logical, it will not be very easy to find what is called the logical function of the copula in "The hill is fiery," or "There is fire on the hill." This assertion, however grounded, is a knowledge of a fact, that is, an intellectual act, and it is far too clearly this act which is expressed by the "is" therein. Nobody can doubt that the copula there is indicative of a function which is psychological. Is there then in addition to it a function that is logical and is expressed by the copula? If the fact of grounding is regarded as logical, that can by no means be expressed by the copula;

for "The hill is fiery," or "There is fire on the hill" is on a par with the assertory "There is smoke on the hill" in so far as the form is concerned, and the proposition itself does not indicate how it has been arrived at inasmuch as it is one thing to infer and another to say that a fact has been inferred. The proposition corresponding to the conclusion of an inference expresses the piece of knowledge attained, but does not imply anything as to that it has been inferred—a fact which can be expressed either by a statement about the proposition in question in a general way, or by a statement detailing the data, and, for the matter of that, the premises upon which that is grounded.

It may still be argued that the copula expressing grounded necessity takes on the form "must be," because "must" carries about it a sense of mediation. There is, however, some justice in the statement that there is in fact no such fixity about the import of "must." It is undeniably the fact that for the sake of emphasis we often employ "must be" instead of "is." Thus, on the presentation of a fact to consciousness, say, a cow, at a reasonable distance, I may, for instance, make such an assertion as "This is a cow" or "That is a cow," but as against the doubt on the part of my companion of defective vision, I may naturally enough say "That must be a cow." But it ought to be clear that here the "must" does not add even an iota to what is already expressed by the "is" except a little emphasis which affects only the mode of communication, but not in any way the act of thought or its content. All anomaly in lingual expressions apart, if we take "must" or "must be" to mark mediation, grounded knowledge or knowing, that is, reasoning or inference, though "must be" by itself cannot point to the specific data in a particular case, we can well make out a difference between the assertory and the necessary.

But what we can gain that way is simply this, that these represent two distinct forms of knowledge—one immediate and the other mediate—each of which involves the full measure of conviction, and, for that reason, the maximum of certainty. But then what about modality? If modality imply the notion of a degree of certainty with which to entertain a content, and, if propositions are to be arranged in a threefold grade according as they express less or more of certainty, obviously there is no question of a difference in the degree of certainty between the assertory and the necessary. So the copula in the assertory as well as in the apodeictic appears to be independent of modality, no matter however much we may talk of the so-called distinction between the psychological and the logical copula. Strictly the copula in its nature is logical, and so in a twofold sense: first it can be taken to express our representation of the relation between two elements in a content to be asserted, this function is to be performed only in the relevant situations, secondly it is an expression in language of an act of assertion, which is intellectual, and which as such does not occur as a subjective play, but always takes place under the control of the objective content in question. So what stands out in contrast to the logical is not the psychological, the reason being that what is regarded as logical with reference to objective contents is an abstraction from the psychological, but the subjective which is, roughly speaking, the psychical that is characterized by freedom from objective control. Hence the so-called logical copula can give no support whatever to the modal scheme of propositions, which is based upon the absurd notion of degrees of belief.

4. Let me now examine the position that modality affects only the content of a judgment. In the judgments, for instance, "It is raining," "It may rain," and "It must rain," the contents, as it is contended, are respectively

the actual fact of raining, the possibility of raining, and the necessity of raining.¹ There can be no difficulty in so far as the assertory "It is raining" and its content are concerned; for what is there asserted is an actual fact at the moment. It is given and directly fixed on. Trouble, however, begins when we come to make out the content of the problematic and the necessary. It is, of course, quite easy to say that the content of the problematic is the possibility of raining, while in the necessary the necessity of raining is all that is asserted. But on reflection there will appear little more than mere language. An ordinary fact to be a fact must be existent in space and time or in time. Possibility or necessity of a fact cannot, however, be conceived as a fact alongside of facts that are, or, can be given in experience and known. Anyway, it may be pointed out that the theory under consideration is based upon the omission of a fact, namely, that in each of the modal judgments the content affects the form. Thus we find three distinct forms of the copula: "is," "may be," and "must be." The difficulty urged is sought to be obviated by reducing the problematic and the necessary respectively to the forms, "Raining is possible" and "Raining is necessary." Now, if "possible" and "necessary" could mean any facts or some of their features, there would be no question of modality as representing a scale of certainty; for possibility as well as necessity would rank with the fact that is asserted in the assertory. The truth, however, is that, objectively considered, there is admittedly nothing like possibility or necessity. In our consideration of them they are none the less given, not only as words, but also as meanings. They are at once given as much from the side of the objective sphere as from that of the subjective. In other words,

¹ Bradley, *The Principles of Logic*, Vol. I, p. 197.

they cannot be given to us quite as the facts that are actual and on which they stand.

In the instances considered above the "may" and the "must" do not bring out anything included within the contents of the assertions. They indicate only two distinct attitudes towards the content which is "rain" or "raining." Judgment as such, whatever the details as to its structure, is an act of thought which will give no scope to any halting procedure or hesitation, in so far as it is an act of assertion, and the copula "is" in a proposition points to a straight affirmation. As "must" and "may" cannot in any way be reduced to "is," provided that "must" expresses mediation, we have to recognize a radical difference between them. Then the modifications in the proposition with the copula "is," which are necessitated by the "must" and the "may" must have to be reckoned with. And this shows, not that the corresponding act of thought is affected, but that the proposition so modified would cease to be an expression of the corresponding act of thought which is a judgment. But again it is clear that, if "may" and "must" are really marks of modality which means modes or degrees of certainty, they cannot in the least touch the nature of judgment which is an act of thought. If we, on the other hand, fix on the forms, "Raining is possible," "Raining is necessary," and look into the contention that in the two propositions the contents "the possibility of raining" and "the necessity of raining" are respectively asserted, we may find reason to ask: what do you mean by this possibility and necessity? One can scarcely get propositions to explain them with, simpler, more pointed and direct than "It may rain" and "It must rain." But such turning back to the original forms of expression of probability and necessity, though necessary and expedient, would make against the position that modality is all a matter that concerns the content of a

judgment; for neither of "may" and "must" is by itself a verb, and, as such, neither of them can mean, like what are really verbs, content of a judgment, and express an act of assertion.

Now the only conclusion that is borne in upon us is that a separation between the form and the content of a judgment is artificial in spite of the fact that they are distinct, and that modality falls in a situation of knowledge which is different from that of judgment, a form of knowledge that is direct, self-evidenced and stands on the basis of the content in question being given. A degree of certainty is relevant only in the situation where we pass by way of necessity from the given to something else which is not similarly given; that is to say, the question of modality comes up only in connexion with the determination of the relation between the problematic and the necessary. The problematic represents an approach to a part of the full condition or ground which makes for a full-fledged inference expressible in the necessary. There are, however, a variety of ways in which the terms "possibility" and "necessary" are taken. So I have to examine closely all these before I can finally set out the truth about modality.

5. To begin with the position that the problematic and the necessary are, in the ultimate analysis, two forms of the hypothetical. As has been indicated above, the necessary has the inferential about it; so "must" in its function there points to a ground or because. When I say, for instance, "it must rain this evening," provided that it is not an expression of a very strong wish for the thing suggested, one may reasonably press a why, and the answer to the query will bring out a because. "It must rain this evening" will then appear as a conclusion which is based upon a ground which is complete, whereas the problematic "It may rain this evening" has significance

only as representing presentation of a part of the proper ground; this brings before us the issue that is to be considered.

To take up the necessary first. The form of the hypothetical is "if—then," in which a synthesis in thought of two elements by way of an inseparable connection is expressed, without indicating anything as to their concrete embodiments, or the contexts wherein they are to be found. The form of the necessary, on the other hand, expressing grounded necessity, should be "therefore—this," which presupposes a "since." "If" implies a supposal, though the supposal in a hypothetical is not merely accidental or arbitrary, while "since" signifies a fact or some facts given and fixed on. The whole matter of the hypotheticality of the necessary then hinges upon whether or not "if" can be reduced to "since," or "since" to "if." In "Since there is smoke on the hill, there must be fire on the hill" the antecedent is a fact given in experience. There is, therefore, no scope for an "if" here. It may nevertheless be argued that even an elementary form of perceptual judgment is in reality hypothetical; for it, to be categorical, has to take within itself the full conditions of its content, the whole series of space and time, which cannot, from the nature of the case, be given in perception. Here it is not possible nor is it necessary to go into detail regarding the theory. To say the least, we may first perceive a fact in a context and then search for its conditions and come by them in the end, but that does not in any way reduce the fact given to a mere supposal. The locus of a perceptual judgment is "this" which is the point of contact between the percipient and a fact. "This" as such then cannot be explained away; for a "this" being a concrete embodiment of "this-ness" is the presupposition of the idea "this." There is no relevancy of the contention that a singular judgment of

perception, in order to be categorical, must include within itself the whole spatio-temporal series as its condition. Taking for argument's sake that the position involves an element of truth, it can be pointed out that, though we can not perceive the bounds of space and time, yet we perceive a definite part of the spatio-temporal series. So there "if" will not have the whole field of being within its sweep; nay, "if" for its any intelligible function falls back upon "is" inasmuch as facts must first be given and known together, never in separation, before they can show forth any necessary relation between them, which is expressed in the form "if—then," and it is in an application of the hypothetical to a relevant concrete situation that we get the necessary. So the statement "Since some conditions are presented and the rest supposed, therefore, this" can scarcely be brought into line with the hypothetical, for instance, "If there is smoke there is fire" in which neither the antecedent nor the consequent is a fact given here and now. The procedure in one case is different from that in the other. In one of the instances we begin with a fact presented and then pass on to its conditions and connect through an ideal operation the two, the conditions and the content in question, by way of necessity, which we express in the form, "If a, b, c, etc., then x." This, however, does not affect the nature of the perceptual judgment that fixes upon "this" as the immediately given in experience; for a fact cannot be presented unless its conditions are actual. The full conditions of a fact may not be, or perhaps most often are not, given in our experience; but this does not in any way alter the situation of our knowing that fact as a content directly presented.

Moreover, "Since there is smoke on the hill, there must be fire on it" presupposes the hypothetical "If smoke then fire." We cannot, in point of fact, pass from "smoke" to "fire" unless we know beforehand that

smoke implies fire. If it is insisted that the necessary "There must be fire" which, when truly articulated, is found to be grounded on the smoke given, is just a hypothetical, the necessary is reduced to something which is its presupposition. But this is absurd.

The hypotheticality of the necessary is, however, sought to be deduced from another point of view. It is contended that necessity as such is hypothetical and that the actuality of the antecedent cannot affect it. In "If smoke then fire," for example, the necessity between smoke and fire is not a fact like either of them; that rather consists in a process in the thought of the relevant contents in relation. It is, however, one thing to say that logical necessity is thought-dependent and another to say that it is hypothetical. Logical necessity may be regarded as being ideal; it does not nevertheless mean that an imagination is all about it. The ideality of necessity is, on the other hand, determined by conditions that are real. At all events, a true hypothetical does not express grounded necessity, but rather that kind of logical necessity which is revealed in the constraint on the part of thought to connect two facts, or two sets of facts. The necessary indicates among other things a sort of compulsion on the part of the percipient or thinker concerned to posit a content on the evidence of the given in virtue of a very close connection between it and the content posited. So it is abundantly clear that necessity in the hypothetical and that in the necessary are not of the same kind. On the contrary, the former is one of the conditions of the latter. In the instance given above, "Since there is smoke, there must be fire," it is indicated that fire is not perceived and that it is known through the mediation of the knowledge of smoke which is direct and immediate. The necessary is then found to be a partial statement of the situation of an inference that has actually taken

place and in which the hypothetical "If smoke then fire" functions as the ground which together with the smoke given in the context in question, obliges the subject concerned to posit fire over there.

6. To turn now to the problematic. The problematic, for instance, "It may rain this evening" admittedly rests on a presentation of a part of the full conditions which make for the necessary "It must rain this evening." Partial presentation of the known conditions of a content is then the differentia which distinguishes the problematic from the necessary.¹ So at the basis of the problematic also there is a "since." But as the "since" there is imperfect, it does not function quite in the same way as in the necessary. In the problematic the "since" points to partial presentation of the relevant ground. But despite this difference, the necessary and the problematic have something common to them as both of them have some fact or facts as the ground. So if we cannot replace a "since" by an "if"—as a matter of fact we cannot—hypotheticality of the problematic too is out of the question.

7. More often than not probability is confused with possibility. It is therefore worth while to consider the various senses in which the term "possibility" is employed or may be employed. When I say, for instance, "I may go," my indecision as to my going is all that is expressed. The word "possible" is often used to indicate an actual fact. Thus, in "Aircraft have been possible through the labour of some scientists of the West" the "possible" has none of its usual meaning. It, on the contrary, signifies something which is contrasted with it in its ordinary sense. The word "may" which is taken as a mark of possibility is often found to imply alternative determinations of a genus. "A triangle may

¹ Cf. Bradley's view.

be isosceles, scalene and equilateral " can be expressed by " A triangle is isosceles, or scalene, or equilateral," where the " is " with the " or " brings out the import of the " may." Should we then speak of being isosceles, scalene, and equilateral each as a possibility with reference to triangle, all that could be meant is this, that triangle to be a determinate must possess one of these characteristics. In other words, from the point of view of the sides in relation to one another, triangle is determined in those three mutually exclusive alternative ways.¹ " May " is sometimes used to denote something definite and actual in a particular sphere or in some of the individuals that constitute a class or genus. Thus, " Man may be honest " implies that some men are honest, which is regarded by some as a " modal particular." Here what is conceived as a possibility in man as a class is in reality an actuality in some men. A question, may, however, be raised regarding the " some." It may be pointed out that the " some " may mean either a definite number of men, or definite individuals, or an indefinite number. " Some men " in " Some men are honest " means the definite individual men who have been known to be honest, but cannot be taken to include within it those others who may be honest ; for obviously there is a distinction between " Some men are honest " and " Some men may be honest," which latter seems to be on a par with " Man may be honest " in so far as the import of the word " may " in both cases is concerned. If " Man may be honest " could be taken as being void of any such implication as that some men are honest, it would moot a possibility with reference to men as such, as much as " some men may be honest " does with reference to some men. *Prima facie*, therefore, there is no difficulty. But a little reflection will show that it is very hard to

¹ Cf. Joseph, *Introduction to Logic*, p. 197.

maintain the three statements together. If we know definite some men to be honest, we cannot reasonably say that some men may be honest, though there is no denying that "some other men also may be honest" is quite intelligible and constitutes a clear case of possibility in the usual sense of the term. On the other hand, "Man may be honest" as a statement of possibility rules out "Some men are honest"; for in that case honesty becomes an actuality at least in some men. The whole thing will ultimately depend on the nature of the concept of "a man being honest," or simply of honesty. If it is a conception constructed on the basis of some actual experience or experiences, or to put the matter the other way about, if the concept in question refer to any contextual aspect of our experience, "Man may be honest" would be a mere guise under which the particular, "Some men are honest" is asserted. If the concept of honesty, on the contrary, is a construction through imagination,—it is very difficult to make good the point that, "Man may be honest" posits a possibility. "Some other men may be honest," however, stands on a different footing inasmuch as it presupposes "Some men are honest" as its ground. Our knowing some men to be honest can legitimately raise a presumption as to some other men also being honest. Whatever the details regarding this and also the problematic "Man may be honest," this much is clear that, in "Some other men may be honest," and, in "Man may be honest" in its implication of a modal particular and as a case of the problematic, the "may" functions differently and cannot be taken to indicate "possibility" in the same sense.

In some contexts of our experience "possible" is employed to express our ignorance. Thus, when a logician after propounding a theory of knowledge contends that his theory will cover all possible cases of knowledge, he cannot mean that he has examined an exhaustive enumeration

of the actual cases of knowledge and that he is now referring to those that are to occur in future. All that he means is that his theory will apply also to the cases of knowledge of which he is ignorant. So also in the statement, "The British foreign policy is directed against the possible enemies of the peace of Europe" ignorance as to who are in actuality the enemies of the peace of Europe is expressed, provided, of course, that the person concerned does not yet know who are the actual enemies of the peace of Europe.

I, however, find myself on the crux of the problem when I come to consider possibility which is grounded. This is precisely the sense in which the term "possible" as used in our ordinary speech is contrasted to "actual." What exactly is then meant by possibility as opposed to actuality? At first possibility appears to be negative. Thus, when we take something to be possible, we do not mean anything more than this, that it is not impossible, the impossible being that which is contradicted by the world of our experience. "Not impossible" then appears on analysis to be a bare denial which consists in no more than prefixing the negative particle to the word 'impossible' and as such signifies little except that a "not" has been so prefixed.

There, may, however, be some significance attaching to "not-impossible." In equating "possible" with "not-impossible" what is indicated is this, that the possible is that which is not contradicted by our experience. Possibility in that sense turns out to be ungrounded possibility. But it may be contended that ungrounded possibility is, in point of fact, no possibility.

Sometimes the structure of knowledge is exhibited in a graduated scale of belief, beginning with doubt which is but a suspense of judgment.¹ In a situation of doubt

¹ Hobhouse, *The Theory of Knowledge*, pp. 318-321.

we get grounds, which are equal in force, both for asserting and for denying the selfsame content. So, while the grounds for the positive, as counteracted by those for the negative, cannot make for the definite assertion that is in view, those for the negative are rendered inoperative by those for the positive. We can get out of such a mess only when the grounds for one outweigh those for the other. Possibility as ungrounded, whatever else it is, does not represent doubt inasmuch as in the situation of a possibility grounds for assertion as well as those for denial are equally lacking. So when we pass from bare possibility, *i.e.*, ungrounded possibility, to articulate knowledge, our knowledge is not determined by the increase or decrease of the grounds for assertion or denial, but rather by a complete change of the situation we find ourselves in. Hence possibility as ungrounded cannot be brought within the aforesaid scale and placed next to doubt. It may be pointed out that we can, in no circumstances, have any bare possibility; for the very attempt to posit it ends in eliminating it. It is often argued that, if we go to assert something, but find no grounds for the attempted assertion, this lack of grounds will constitute itself as the ground for the corresponding denial. In the case of bare possibility there is nothing positive which can serve as the ground for the possible, and it is insisted that the lack of grounds for an affirmation forms itself into a ground for a denial, which amounts to that ungrounded possibility is nothing but a quibble. Now the point that demands consideration is whether a non-affirmation can make for a corresponding denial. It has been shown above that such is not the case at least in the situation of doubt; for there both the ground for affirmation and for denial are presented, and one is counteracted by the other, so that there practically occurs

neither affirmation nor denial. The situation of ungrounded possibility is, however, different from that of doubt, and the difference consists in an utter lack of ground for both asserting and denying. If it is now contended that the lack of ground for affirming is equivalent to the ground for denying, prominence is evidently given to affirmation as a form of knowledge and its ground, so much so that in the event of a non-affirmation in the absence of the requisite ground we are said to be left with the only alternative, denial. But then how to account for this peculiar importance attached to affirmation and its ground? In other words, is it a fact that, when we fail to affirm, we necessarily end up by denying? If we go into detail on this point, we shall hardly find anything to justify us in answering the question in the affirmative. I may draw upon ordinary experience and its contents in order to controvert the position that a lack of affirmation amounts or leads to negation. There may, nevertheless, be some truth in the contention, if it is taken to indicate that, when we deny, and if the denial is grounded, there would be no scope for affirmation there. But from this it can by no means follow that, when we are not affirming for want of ground, we should be denying with reference to the content in question. It is clearer than anything else that, if we deny a content we cannot affirm it at the same moment, and *vice versa*. Again, if we are not denying, it is not that we are necessarily affirming, and, if we are not affirming, it is not that we are necessarily denying. One with a proper understanding of these points will not find reason enough to cavil at ungrounded possibility.

To illustrate the point that, if we are not affirming a content, we are not necessarily denying it, I say, for instance, "It is possible that there are ghosts," which is not the same as the affirmation, "There are ghosts." In the former it is indicated that the evidence upon which

the latter can be made does not fall within my experience, and that ghosts as disembodied spirits are posited on seeing that nothing in the nature of the known world contradicts the suggestion. If one does not find anything to justify one's belief in ghosts, one may forthwith deny their existence, one's belief or disbelief depending upon one's will to believe or disbelieve. There would, however, be no logical justification for the attitude of disbelief in ghosts, which is adopted on the basis of the lack of ground for belief in them. It still remains that there is nothing in Nature to contradict the suggestion of there being ghosts. There may be ground or grounds yet unknown for the affirmation that there are ghosts, but lack of incompatibility between the suggestion of there being ghosts and the actual world cannot be construed into a ground which will be the minimum of ground for the relevant affirmation. Not only this; strictly, in the situation of possibility, no question of any specific ground for affirmation and denial alike is relevant; for, if we look closely into the matter, we shall find that the possible is posited solely on the basis of our experience, or our experiential world taken as a whole. And it is precisely this which is expressed in a negative form of statement, namely, that nothing in Nature contradicts the suggested. It is verily this that distinguishes the possible from the probable.¹

In the case of the possible no question of any specific ground arises inasmuch as the possible as such could not have been previously given to experience, the possible being constructed through imagination on some factual basis. So it is an utter confusion of facts that is expressed

¹ Some take the probable as evidenced as contrasted with the possible which is taken as being due to ignorance.

(*Vile Monist*, Vol. XLIV, 1934, p. 217). Some, on the other hand take the problematic as uncertified. (Cf. Johnson's theory) Both views are, to my mind untenable.

in the statement that in the problematic as contrasted with the assertory or the necessary possibility is all that is asserted. What is then the import of the word "problematic"? Does it represent a judgment or an inference?

Here I cannot enter upon any detailed discussion on the fundamental nature of judgment as such. I have in some of the previous chapters indicated in a general way that judgment is essentially truth-claim which demands the relevant content to be presented. So, the problematic which is not based on the presentation of the content towards which it is directed, shows itself to be a species of the form of knowledge, which is not judgment. Anyway, this much is certain that judgment cannot be less than affirmation, and in the form of the statement, "S may be P," we cannot be said to be affirming; for an affirmation is that which is expressed not through "may be," but through "is." It is absurd to think that we can have more or less of affirmation. On the other hand, the plain fact is that, if we affirm we affirm, if we deny we deny, and that there is no gradation of belief, that links up the two, affirmation and denial of the selfsame content.

The problematic cannot be regarded as an inference any more than as a judgment. An inference is, broadly speaking, a passage in thought from the given to a relevant fact, which is not given, on the ground of the given. The problematic, for instance, "It may rain this evening," if not arbitrary as an expression of a desire or wish, must have a ground to stand upon, a ground which cannot be more than a part of the full ground which would make for an inference. We easily distinguish between "It may rain this evening" and "It will rain this evening," or "it must rain this evening," and the distinction between the problematic and an inference is a matter that has to be explained. An inference being a mediate form of

knowledge stands on some datum or data that are presented, and the intellectual attitude adopted there can be characterized as belief. The question of belief arises only in the situation wherein we are not in immediate contact with the content under consideration, a content we reach out to in thought on the strength of some other content or contents that are immediately known. Now the problem of the problematic appears in another form which is : whether we can get a degree of belief in the problematic, whereas we get full belief in an inference. The question is altogether absurd and hardly deserves any detailed answer ; for we cannot have varying degrees of belief any more than of truth-claim, as both being thought-function defy any quantitative measurement.

It may, however, be contended that, as action is induced by belief and in the situation of the problematic as we are often induced to act in a certain way, there must certainly be some belief therein. It is undeniable that ordinarily belief induces appropriate action. It is also true that we do not always act upon our belief. For instance, many believe in God, but they are found not to act accordingly. On the other hand, many unbelievers act as if they were firm believers. Far more interesting is, in this connexion, the case of buying a lottery ticket. A certain person, let us imagine, buys a sweepstake ticket. He cannot definitely know in advance that he will win the first prize or a prize. In the face of such uncertainty he spends a sum with the sense that he may secure one. There must be, it may be argued, some belief working in the mind of the man and inducing him to that action, otherwise how to account for this his action ? The only evidence he can rely on is that some men in the past proved lucky on horse-races. But this cannot be, and is in fact not made, the ground of whatever degree of conviction one may be credited with in the situation of the problematic

of the type cited above ; for there can obviously be nothing to bind together by way of necessity the good luck of a man and the prospect of good luck of any other. The truth is that in such situations the problematic concerns only the form of a sentence in which a desire is expressed, and it is a desire alone which is there the spring of the action in question.

We can well have a course of activity following upon a belief, but from this we cannot say that activity of any sort cannot be found except after belief. Many instances can be cited to show that very often we act, and more violently than ever, though there is hardly anything like a corresponding belief, one of the reasons being that activity is more primal than thought. To take one of the examples Bradley made use of in his logic, we often leave a graveyard in the evening, though we do not believe in ghosts. Children in their play put themselves into vigorous activity without the least idea that that would improve their health. It may now be pointed out that these examples are of no avail inasmuch as they cannot in any way clarify the situation of probability, and that it is yet to be ascertained whether "It may rain this evening," for instance, represents mere indecision or something more or less than that. When full conditions, or the complete ground is known, we have an inference which is full belief. In the problematic, on the contrary, some of the conditions are presented, or a part of the complete ground is known ; so mathematically there should be a belief which would fall far short of full belief. To repeat, if full belief is belief, and so also a fragment of it, it will not matter much whether there is more or less of it ; for belief as an intellectual function would be in its so-called varying measures self-identical. There would consequently be no valid distinction between "may" and "must" ; for they have to merge into "is," "was,"

or "will," as the case may be, according to the tense indicated. These three elements of language—"is," "was" and "will" are the proper symbols through which the thought-function in an inference is expressed. On a closer examination, it will appear that in the problematic there can be no belief as such, far less any degree of belief. If we know for certain that A, B, C and D are the conditions of X, and if X is not directly given, A, B, C and D being given and known, we can be firmly convinced that X is there. If, on the other hand, some of them, say, AB or CD, or ABC or BCD, are presented, the belief that there is X, is inhibited, and the existence of X there is taken to be only probable. What is then this probability of X like? Is it that the content in question, *i.e.*, X, is really entertained? If entertainment of a content means assertion or affirmation, we do not certainly entertain a content in the problematic. The word "problematic" may, however, be taken, in this connexion, in a broad sense to mean simply apprehension of a content, a mental attitude towards it, which is not a judgment or belief. It is only in this sense that a content can be said to be entertained in the problematic. And the mental attitude involved therein is just a tendency towards belief, which is, in short, will to believe.

It may now be asked: How can there be anything like more or less of probability? It is taken to be an indisputable truth that the degree of probability varies with the number of the conditions presented, which holds a ratio to the full conditions. Thus, in the instance considered above, if ABC are presented, it may be contended, the probability of X will be far greater than if only B C, or A B are presented. To put the matter negatively, in the event of D being absent, or not known to be present, we cannot posit X there in spite of the rest being presented, and this shows that the condition which

is not presented outweighs ABC taken together. This situation will not be altered if we get only B C or A B presented; for there is lack of belief all the same. It may appear that all this is true only from the point of view of belief, and it may be pointed out that there may nevertheless be more or less of certainty wherewith the content in question is entertained, according as there are more or less of the conditions presented. There seems to be something quite plausible about the contention. But, if we ponder a bit, we shall find that it is based on a misconception, namely, the conception of quantitative¹ or numerical calculation of probability, in which the

¹ Mr. Keynes suggests (*vide A Treatise on Probability*) that numerical measurement of probability is feasible in the case of exclusive and exhaustive alternatives which are equiprobable. Obviously the word "exclusive" is here redundant; for alternatives cannot be alternatives if they are not exclusive of one another. But then what is to be meant by "equiprobable?" All that Mr. Keynes says on the point is this, that equiprobable are those alternatives that have each the same degree of probability. And the same degree of probability is sought to be derived from the exclusive character of alternatives, that is, from the nature of alternatives *qua* alternatives. But I may here ask: What is probability itself? To repeat; there is a radical difference between probability and possibility. When with reference to a subject some alternatives are proposed, and when there is nothing to enable us to decide between them, an assertion of any of them is out of the question. The most that can be meant in a piece of disjunction is that the subject in question is to be determined as one of the alternatives, and is not, in point of fact, so determined in so far as the disjunction goes. And this shows clearly that the alternatives proposed are only possibilities in relation to the subject in question; So "equiprobable" is a clumsy expression for "just possible."

Granted that in a situation like that mentioned above there is probability, that can be apportioned among alternatives, and assuming that the alternatives proposed are seven in number, we find that each of the alternatives, according to the theory, must represent one seventh of probability. It is true that the degree of probability each of the alternatives possesses is in that way made articulate. But we are kept safely in the dark about what probability is like. Seven one-sevenths make one; so seven one-sevenths of probability make total probability. It is, however, ridiculous to suppose that a number of alternatives exhaust between them total probability; for there are also other countless situations of probability. If, on the other hand, probability be something that relates to mental attitude with reference to a content objectively existent and yet not presented in direct experience, there is scarcely to be found anything to be measured numerically, or quantitatively.

number of the conditions in question is fixed on in abstraction, without taking much into consideration the factual nature of each of them and its contribution to the actuality of the fact under consideration. A, B, C and D are supposedly the four conditions of X. So each of these should be taken to guarantee $\frac{1}{4}$ of the probability guaranteed collectively by them all. But it is all absurd; for A, B, C and D together constitute no case for probability, X being in that case actual. Hence the calculation must have to be confined to A B C alone. If A B C then represent the highest degree of probability with reference to X, each of them by itself represents only $\frac{1}{3}$ of the whole, and any two of them $\frac{2}{3}$. We, however, cannot afford to forget that, if X is not there, A B C being presented cannot bring it in, and if it is there, our ignorance of any one, or any two, or even any three of them, cannot nullify its existence over there. In point of fact, either X is there, or X is not there; there is no middle course between the two. X cannot be said to exist or not to exist, to some extent, in a context. So any so-called degree of probability turns out to be nothing but a degree of certainty with which X as a content, for example, is entertained. As has already been indicated, in such a situation as the above, entertaining of a content, if there be any, is no affirmation; otherwise, all trouble would end; for in that case we would come to a settled state through an affirmation immediate or mediate. The point that now forces itself on our attention is this: with the presentation of any two or three of the conditions, in the above instance, we cannot be surer of the existence of X there than with that of only one of them; for in each of the cases our ignorance of the rest of the conditions in question stands between us and belief, and we are left only with a tendency¹

¹ Hence the fact is that "It may rain this evening," for instance, does not involve within its implication "It may not rain this evening." Aristotle, however,

towards belief, which is more of will *plus* emotion than an intellection, though there is no denying that will there drives us towards belief which we cannot attain owing to the lack of the full ground. So quantitative measurement of probability is a superstition that proceeds out of the misconception that number can be abstracted from the things numbered and made operative apart from the characters of things as such.

maintains that " may, " as a matter of fact, involves " may not " (*vide De Interpretatione* 22b, 20). But the contention betrays a confusion between the problematic and the doubtful.

CHAPTER VIII

JUDGMENT AND INFERENCE

1. In the previous chapter I have tried to show that modality meaning modes of certainty has nothing to do with judgment, and that it falls, though strictly not within inference, in the situation where the question of inference is relevant. It may, however, be maintained that we cannot in fact make any such rigid division between judgment and inference, and that, in the ultimate analysis, a judgment is found to be a full-fledged inference. Indeed, distinction or otherwise between judgment as such and inference as such depends on one's attitude towards them as forms of knowledge. So I shall do well to get to some details concerning the point.

2. The pragmatists, who seek to minimize the value of any rigid division between the different functions of thought, feel a need to recognize some sort of distinction between judgment and inference. A judgment is taken by them as an experiment which is aimed at a problematic situation. The transition from judgment to inference does not, however, according to them, indicate any passage from a lower form of knowledge to a form which is considered higher in respect of both its structure and function. Judgment as such being a direct solution affords immediate guidance to action. Need for an inference arises when a judgment by itself is not satisfactory and cannot be taken to be the final solution of the situation in question and when it requires to be "bolstered up by another." "The transition to inference," says Dr. Schiller, "is not as such a promotion of judgment to a higher rank. It is to be

conceived rather as an increased delay before action.”¹ Taking for granted that judgment is relevant in a problematic situation and that it is an experiment, we have yet to inquire into the nature of this experiment, and cannot be content with a mere surface view of it. There is no need here for any detailed discussion of the position of the pragmatists. It will suffice to take up for consideration only the point at issue, namely, the transition from judgment to inference. And what I have to say in criticism will be clear if that is presented through a concrete illustration. I wake up, for instance, one day in the morning and find the street near my house all wet. Here, to be sure, I am faced with a problematic situation to which a single judgment by itself, namely, “The street is wet” is not adequate, the notion of adequacy there being intelligible only with reference to a definite purpose which is subjective and to a definite context which is objective. Now, in the instance, the judgment “The street is wet,” is good in so far as it goes inasmuch as it surely answers to a fact presented. “Wet is wet,” “A street is wet,” and so far so good. And it is difficult to discover a problem in the situation of the street being wet, as in itself. It may, nevertheless, lead to some problem regarding the mode of the subject’s action. It may be that I do not like to walk along a wet path, or that I consider so walking harmful to my health, and thus I may oscillate between some such alternative courses as whether I shall put on thick boots or take a taxi-cab or to any other mode of conveyance. The solution of the difficulty rests entirely with me as the subject, and the judgment which is taken as the experiment upon the situation is not in any way relevant to it. There is, however, a way in which the situation may unfold a problem

¹ *Logic for Use*, p. 242.

from within itself. Clearly there can be no problem as to the what of the situation as given. There may, nevertheless, be one only as to the how of the what. Moreover, any particular fact in the situation may furnish problems from various points of view, such as that of physics, physiology, psychology, or even metaphysics. I cannot, however, concern myself, there is no need whatsoever, with any such view of the fact under consideration. The analysis that is to be made here will be effected mainly from the point of view of our ordinary experience, and all discussion as to experience as such will have a bearing on it. If I do not know that "being wet" is one of the fundamental features of the street as such, it cannot be self-explained in being merely given. And, if there is a problem, it is doubtless the problem as to its explanation as a content of my experience in the context in question. So I feel constrained to pass from the content in question to another that is there, or has happened, but is not experienced at the moment. This constraint is not, however, merely pressure of blind practicality. If there is compulsion, and that in a definite direction, it cannot be accidental or arbitrary; otherwise the problem would reduce itself to a question of mere personal choice, taste or temperament, and with this our life would be shaken off its objective moorings. As, in point of fact, our life and everyday experience is not all a matter of personal fancies, there is reason enough to justify us in going beyond the pragmatist position. It is significant, none the less, that even on the pragmatist platform a distinction is made between judgment and inference. But to say that both judgment and inference are experiments upon a problematic situation and that the former offers an immediate solution, whereas the latter a delayed one, is not to say much about the distinction between them. The distinction made in that way, in short, turns on the difference in the

spaces of time required by those in offering aid to action. We may find that an inference as in itself is comparatively a prolonged process. But this time-difference itself needs to be elucidated. In taking both judgment and inference as experiment we simply note a difference between them with reference to their reaction to the practical side of our life. But it is difficult to fix on this as the differentia; for that does not show forth anything of their constitution as intellectual functions. If there is any need for making a distinction, the pragmatists do make a distinction, we have to look beyond the distinction for the difference that hinges on the intrinsic nature of each. So it ought to be clear that the pragmatists stop halfway and enjoy self-complacence in thinking that they have said the last word on the theme, while the solution they offer us is only a tissue of half truths.

3. There are some theorists who approach the problem of the relation between judgment and inference in the light of their view of inference as such. An inference is taken by them to be a process of knowledge, in which three elements are to be distinguished. Therein, first, a datum or data are given, then some ideal operation is made upon them, and finally a result ensues in the form of the conclusion. Inference is regarded as an experiment wherein the datum is subjected to an ideal activity; a change takes place through the operation, and the datum retains its identity in spite of the change and appropriates the result, and in the conclusion perception of a new quality or relation follows. The ideal activity that is involved therein is shown to have two aspects, namely, analysis and synthesis. On the other hand, judgment is taken to be an intellectual act which consists in referring an ideal content to Reality. It is also maintained that both analysis and synthesis are involved in judgment. In a perceptual judgment, as it is contended, a fact is given

and fixed on through selection from the surroundings, a process which is nothing short of analysis. Further, the content fixed on is a complex of qualities and relations, and apprehension of it all and as a whole entails synthesis of its elements, which is also analysis of the whole into its elements. Now, one can very well say that in judgment also, as in inference, something is given and subjected to an ideal activity, whereupon a result follows. Such being the case, how to distinguish between judgment and inference? We are told in reply that explicit judgment is prior to explicit inference, and as such there is a distinction between the two. But, strangely enough, it is pointed out that, in so far as their rudimentary stage is concerned, neither of these is prior to the other. Thus, it is contended that, if we go backward beyond the stage of articulate judgment to the beginning of our conscious life, we have to make a distinction between the two, the physical and the psychical. This distinction is, of course, not known at the outset. In that situation, we are told, stimulus comes from without, but cannot be given as such; for it is always received as reacted to by the psychical, and, again, as the psychical cannot function in a void in the situation of our awareness of objective facts, stimulus itself must be something. We cannot, however, see how this situation can involve the rudiments of both judgment and inference. Judgment itself presupposes a given, and, for that matter, those primary processes which contribute to the presentation of the given to consciousness. The presuppositions of a fact, however, cannot point to anything of its fundamental structure. If the primary stage of our consciousness is not indicative of judgment even in its nascent form, far less will it be indicative of inference; for an inference is no imagination. An inference has for its starting-place perception which in its turn involves judgment articulate or otherwise. To trace judgment

as well as inference to the primary functionings of consciousness then betrays a passion for continuity between the beginning of our conscious life and its developed varied forms. But we cannot cherish a continuity which annuls the differences between the different stages and the different forms of awareness or knowledge.

Now returning to the question of the relation between explicit judgment and inference, we find that the distinction is maintained in two ways. First, the operation involved in judgment is taken to be capricious, and that involved in inference is found to be necessary; secondly, the stuff upon which judgment works is regarded as sensuous, and that of inference as intellectual. It is contended that there is no logical necessity, though there is a psychological one, in judgment. But the difficulty is how to make this distinction intelligible? We may conceive psychological necessity as subjective *qua* subjective, and this, so interpreted, will mean simply the necessity of our will. A judgment, however, cannot be taken merely as an expression of will. The urge of will is there at the back of it all, but in so far as it as an intellectual act is concerned, will cannot enter into it. A judgment is not a mere wish. It, on the contrary, comes into being under the conditions and control to which our will as such has to bend. So in judgment we find necessity of a sort which needs a reference to objective control, and such being the situation, it is idle to speak of two distinct kinds of necessity psychological and logical. If we at all use the terms "psychological" and "logical" with reference to necessity involved in this or that form of knowledge, the distinction must be purely verbal.

Logical necessity may nevertheless be taken to mean something specific, namely, the necessity experienced in the passage from data to conclusion. No one can deny that necessity in this aspect of it is found to function in

every piece of inference. But we cannot have this sort of necessity in the situation of judgment. On a closer examination, it will appear that the necessity in an inference, as in itself, is an abstraction and as such cannot be taken as constituting the whole structure of an inference ; nay, necessity by itself, whatever the situation in which it is found to be involved, is only an aspect of the whole situation in question. A whole is far greater than any of its parts. So there can be no two opinions on the point that a part cannot explain the whole to which it belongs. On the contrary, a part is always intelligible by its relation to the whole where it lies, by its place and function therein. So in an explanation of a part of a whole we have to resort to an analysis of the whole in its fundamental structure. But saying something very general about inference, which equally applies to any other form of knowledge *qua* knowledge, cannot amount to an analysis of it as a specific form of knowledge. Elucidation that is demanded cannot be complete unless we show the specific ways in which the generality in question is realized in the specific stages of our mental life and forms of knowledge.

In an inference the data are synthesised, and, for that reason analysed, and this ideal operation is only a moment in the act of apprehending the conclusion following from the data. But in the case of a judgment both analysis and synthesis function in an altogether different way. Whereas in an inference the ideal operation takes place on the way to the conclusion, in a judgment it (the ideal operation involving analysis and synthesis) is confined to bringing before consciousness an objective content as the contextual basis for the intellectual act. So the mere assertion that in both judgment and inference analysis and synthesis are involved does not do away with the distinction that is

ordinarily made between them, nor does it make the distinction explicit.

Can we then base the distinction upon the very nature of the stuff dealt with in the two cases? It may be argued that the stuff upon which judgment works is sensuous, and that of inference is intellectual. The truth, however, is that, so far as the situation of knowledge is concerned, we can hardly drive a wedge between the sensuous and the intellectual. An inference to be purely intellectual must be all an imagination. There if we begin with an "if" we shall remain for ever with an "if": for "if" by itself cannot lead to "is." The data must be factual there, or, if ideal, must be representative of the relevant facts, because the basis of an inference, in the ultimate analysis, is perception. So the stuff upon which an inference works is not purely intellectual. The content upon which a judgment fixes is, of course, given in our sensible experience, but is not on that score merely sensuous. The given cannot serve as the content of a judgment, in its purely sensuous garb. If it is relevant at all to the judgment in question it is by all means due to the fact that it has already been idealized. In short, the given cannot constitute the contextual basis of a judgment except as thought of, and, for that reason, without partaking of the intellectual inasmuch as thinking is obviously an act of intellection. It may, however, be pointed out that I have missed the main point. It may be contended that the stuff upon which a judgment works is the felt whole out of which the content in question is analysed and held as a unity by a synthesis of its inner bits. Now to take judgment as reference of an ideal content to Reality is not to confuse between judgment as such and imagination; for in a judgment reference, far from being arbitrary, is definite, and the reference is made definite through the given with its control. The given is the

occasion and the point in and through which reference to a reality is made and made definite. So the given is the necessary presupposition of judgment as an act. There is no doubt that some preliminary processes in consciousness contribute a good deal to the selection of the relevant content out of the felt whole, but it cannot be shown that those processes themselves enter into the core of the judgment in question. So it is difficult to make anything out of the distinction that, the stuff upon which judgment works is sensuous, whereas that inference deals with is intellectual.

An attempt, on the other hand, is often made to minimize the distinction between judgment and inference, and that through an analysis of the nature of judgment as such. A judgment is taken to be reference of an ideal content to Reality which is not an abstract unity, but is manifested in the manifold facts of our experience. So when in a judgment we fix on a fact, reference is mediated through the fact given. Immediately we are concerned with the content given, mediately with Reality which is in the content as well as in the background. Every judgment is therefore to be put into the form, "Reality is such that S is P." Much significance is pressed into "such," so much so that "such" is elated to be a stupendous because which shows forth a judgment to be mediate and grounded, and, for that matter, to be essentially an inference. Some concession, however, is allowed; it is contended that mediation in a judgment, so far as it goes, is not explicit, and that the transition from judgment to inference is merely the way to the explication of judgment itself in its details.

Now such an account in itself is attractive. But it is in our interest to bear in mind the well-known proverb, "All that glitters is not gold." We must have to examine it narrowly before we can accept it. It is not out of place

here to mention that the notion of Reality as manifesting itself in the finite things and beings of the world is not in the least relevant to judgment which is essentially selective. It cannot be concerned with an environment indefinite or definite except as a content fixed on, but only with a particular element or aspect of it at a time. We may speak of a content as existent in an environment. But our knowing it as given does not necessarily involve a reference to the environment as a whole. For instance, the judgment, "This tree is green," when expressed in the form, "The environment is such that the tree is green," will not reveal anything in addition to what is conveyed in its original form. By this circumlocution do we mean anything except that this tree is green? "The environment is such" points simply to the content as given, and this explication is unnecessary; for the given is that upon which the judgment fixes. The asserting of that is then not to be taken over into the judgment as an act. It may, however, be argued that the illustration is rather misleading; for environment as such is not Reality, though Reality expresses itself there too. What of that? The illustration can at any rate afford an analogical case. I may even leave that aside and go straight to the notion of Reality to consider its implication. Reality is regarded as immanent in a fact given. Then, "Reality is such that S is P" means simply that Reality as manifested in the context in question is "S—P". So the reference to "S—P" as a fact given and to Reality as realized in it must be immediate. But the knowledge that in referring to "S—P" as a fact given we are also referring to Reality does not fall within the judgment itself as an intellectual act, which as a form of knowledge is concerned only with the given, and does not take cognisance of its implication or its conditions. A judgment may be used as an element in the situation of the knowledge of Reality as referred

to in a judgment, but this knowledge will not accrue to us in the form of a judgment inasmuch as Reality cannot be taken on a par with a fact that is ordinarily fixed on and known.

There is, however, another aspect of the question, which is : in "Reality is such that S is P" the "such" is taken to indicate the ground for the assertion that S is P. But it is not easy to see how the "such" there can beget out of it a "because." The content as given, with which a judgment is concerned, is admittedly a selection from the surroundings ; it is not itself independent. But to know a content as given does not involve any reference whatsoever to the conditions upon which it depends for its being. The knowledge of a content as a content is not in any way enhanced by the knowledge of its conditions. The latter undoubtedly involves an extension of the knowledge of the bare content in question. This, however, does not render our perceptual knowledge of a fact mediate, and, for that matter, inferential ; for mediation in the sense of being grounded or grounding is here irrelevant as the fact in question is immediately given. We nevertheless find that a thing conditioned and its conditions are so related that, if they had already come within the purview of experience, on the presentation of the conditioned, we would pass in thought to the conditions. But this is entirely another matter, and to this the judgment dealing with the content (the conditioned) given, can afford to be indifferent in so far as it is an act of thought, though there is no denying that the judgment may become a link in a chain of reasoning.

An attempt may, however, be made to show a way from "conditioned" to "conditional" ; the "Such" of Reality may be taken to indicate our ignorance as to its definite nature from which "S—P" follows. If we knew its definite nature we ought to have said, "Reality has this or that nature by virtue of which this or that

fact is given." As a matter of fact, we do not know anything definite of the actual nature of Reality, out of which the finite things and beings are flowing forth. If we do not in fact know Reality with its actual nature in which "S—P" is grounded, what is the point in saying, "Reality is such that S is P?" All that it there amounts to is that we have to make a very vague hypothesis as to the possible conditions of a content given, which we cannot make articulate even as a concept by any stretch of imagination, in order to show what is actual to be hypothetical. The theory of hypotheticality of the actual issues out of a metaphysical obsession and involves a tag of mediaevalism which was for the most part characterized by overzeal for other-worldliness. Taking, however, for granted that Reality is there, wherein the facts of experience are grounded, it does not follow that what is the ground of the being of S—P, for instance, is also the ground of the knowledge of S—P as a content. If the notion of Reality is not insisted on as absolutely *a priori*, it is an insight into our experience taken as a whole. The experienced can well be taken as the ground of our knowledge of Reality. It is often found that the *ratio essendi* and the *ratio cognoscendi* of a thing coincide. But there would on that account be no confusion between the two in their distinctive nature.

Further, the "such" of Reality is obviously not known. So it implies supposal, and in a supposal we work with an "if." In cases where we begin with a supposal, there may be a semblance of an inference, but the fact is that with a supposal at the basis of an intellection we do not infer; without the "if" being converted into a "since," or a "because" an inference there is impossible. We can get at most a conditional statement with an "if." But it is a far cry from a bare conditional assertion to an actual case of inference.

There is, however, another avenue through which an approach may be made. It may be urged that, though there is ordinarily a distinction between judgment as such and explicit inference, judgment can nevertheless be regarded as implicit inference. Now the question is: What exactly is the distinction between an explicit inference and an implicit one? If an implicit inference is inference, it must possess all the fundamental features of an inference. A distinction may be sought to be made out by saying that the principles that function in an implicit inference are not so much on the focus of consciousness, and, for that reason, not so much consciously grasped at the moment. Were it actually the case, all inferences as they are made in our day-to-day experience would have to be regarded as implicit; for in an inference the operative principle or principles are not given and grasped exactly as the datum is given and grasped. The distinction then that is made is found to be self-destructive. If, on the other hand, an implicit inference is taken to indicate a situation of knowledge involving inferential matter, we cannot see how that by itself can become a situation of an actual inference. The contention points simply to the fact that a particular case of knowledge can be made into one of inference. But it does not mean that the case in question can represent an inference. This notion of inference then indicates only a vague anticipation of an inference. There is, therefore, no occasion for a judgment as such to be an inference.

4. Judgment, as has already been indicated, is essentially truth-claim, and truth-claim is not possible without the situation of truth falling within that of judgment, which presupposes the relevant objective content as being given. The transition from judgment to inference is not all abrupt. In perception we are in direct contact with facts. This directness or immediacy is not solely

confined to perception, but is also to be found in memory which, though no perception through outer senses, can well be conceived as perception with the mind's eye inasmuch as it is direct knowledge without any mediation whatsoever. Here perception in the usual sense of the term is doubtless the basis ; but memory is not an inference that is grounded on perception. On the contrary, memory is no imagination ; for there is involved truth-claim with reference to a determinate content in a definite context. In perception a content is given in sensible experience, whereas in memory there is nothing like sensation occasioned by some external stimulus. What is known in memory is nevertheless given as already experienced, and, for the matter of that, as past. Memory is then clearly dependent upon perception and is at the same time unique in itself. But it can be safely asserted that both belong to the same grade of knowledge as they in their respective ways involve judgment. Now, if perception and memory were the only ways of knowing, the range of our knowledge have been very much limited. On the other hand, the fact is that the human mind makes a means out of the directness of perception and memory to break through the bounds of immediacy.

Testimony as a form of knowledge is often undervalued. One may say that it is a mediate form of knowledge as it is not in itself perception or memory. But between what is known there and the authority on which it is known there is no necessity indicative of any obligation on the part of the knower concerned. There is none the less a sort of necessity and that in the sense of the trustworthiness of the source of the piece of knowledge in question. But that is more a matter of sentiment than of intellection. Testimony is to be distinguished from imagination, though imagination with reference to the source of the knowledge in question is involved therein,

Testimony involves belief as well, which is induced there by the sense of trust-worthiness attached to the relevant source under an urge of emotion, there being then no connective necessity, objectively considered, between what is known in testimony and that upon which it is based. Testimony is obviously no inference. It is also not a case of perception or memory. Strictly, it is unique in itself and is the form of knowledge intermediate between judgment and inference.

Inference is the distinctive form wherein knowledge is released from its imprisonment in immediacy and where we find a move towards extension of knowledge on the ground of the given. The extension is not, however, effected by way of any subjective caprice, but rather by means of some connective principles functioning within our experience with reference to two or more contexts. Now the distinction between judgment and inference can be set out definitely. Whereas a judgment *qua* judgment is concerned with the given as the immediate fact, an inference is a passage in thought from the given on the strength of the given to some relevant fact which is not similarly given. Such being the case, we cannot do away with the distinction that stands between them and maintain that judgment in its fundamental structure is inference. In judgment truth-claim which is its essence is self-justified and does not require a prop, whereas in inference belief which is its core is mediate inasmuch as inference takes its stand on a datum and a leap towards what is entailed by the knowledge of the given. So long as we continue to make a distinction between the situation of the knowledge of the given *qua* given and the situation of that of what is not given, we are bound to keep apart judgment and inference in so far as their fundamental structure is concerned.

CHAPTER IX

THE NATURE OF INFERENCE

1. In the previous chapter I have considered the most general aspect of inference in contradistinction from that of judgment. It is worth while now to consider some details. In some quarters inference is accorded an extensive scope, so much so that even what are regarded as elementary functionings of thought are brought within its sweep. Thus, comparison, abstraction, recognition, identification, discrimination, etc., are viewed as so many specific forms of inference.* Let me analyse each of these, and see if there is any trace of inference in it. An analysis of the fundamental nature of inference apart, it should be pointed out at this stage that, inference, as a mediate form of knowledge, and, as such, as distinguished from the immediate forms of knowledge, involves as its starting-point, a datum or data on the strength of which we obtain knowledge of something else in the form of conclusion. An inference will cease to be an inference if the content we are concerned with in the conclusion is made as immediate as the data by the inferential operation.

To begin with abstraction, we find that it is involved even in the most primary functionings of thought, and, is, for that matter, almost invariably found to be involved in the situations of our everyday experience. I may take for consideration what Bradley would call an analytic judgment of sense, such as "This tree is green." Here what

* *Vide* Bradley, *The Principles of Logic*, Vol. II, Chap. 2, and Bosanquet *Logic*, Vol. II, pp. 19-25.

is given at the outset is a whole with its aspects. Then through analytic attention the colour of the tree is fixed on and abstracted from the other aspects of it. In other words, something is given and subjected to some ideal operation, and then some result ensues. But it is by no means that there we get any real extension of knowledge, which is grounded on the given. The fact, however, is that there is no need for grounding in the case of what we know by way of abstraction inasmuch as in such cases we know a content ideally, occasionally also as a fact presented. The process of abstraction in separating what we know as the result of the said process within the whole in question, serves to bring that to the forefront of consciousness. Thus, we find that the green colour of the tree in question is not a mere ideal extension of knowledge on the strength of the given. The phrase "on the strength of" is really misleading here as it is apt to be taken to express the notion of "because" which may seem to be nothing less than "logical ground." It is undoubtedly true that the process itself is psychologically mediate as there is a basis upon which thought works. There is, nevertheless, no sense of justification within the process itself viewed from the basis to the result that is wrought upon it. In short, the content that we know in virtue of the process is presented to consciousness and as such is immediate, and hence does not call for any justification.

Abstraction functions ideally as well. Subtraction in mathematics is a case in point. Taking, for instance, $3-2=1$, we find that in the process of subtraction analytic exclusion is operative. First we break up 3 ideally into three units, then we exclude two units and perceive, of course ideally, the remainder as one. Here too the point that demands consideration is whether there is a real extension of knowledge. Within the whole "3" we intuit three units as the constituents, two of them

are then omitted and one is left over to be apprehended. The "one," however, is nothing new to us now. It was before in a company, it is now all alone, and this is the only difference we find about it all. The omission of the two of the units is merely the psychological occasion for knowing it in isolation. But our knowing it alone does not affect in any way our knowledge of it as a unit. We may begin with a whole, break it up into its parts, throw away some of them and retain the rest. But I cannot persuade myself to see in such a process an inference.

A little reflection will show that, when a whole is given, all its elements are in the whole, but are not given along with the whole quite in the same way as the whole is given; some distinctive operation is needed in order to bring any of them to the fore. Thus, in the process of subtraction we can distinguish between three successive stages of the given, namely, that of the whole, of its elements, and finally that of the remainder. In all these the character of the given varies. But in none of them we ever pass from the given to the 'not given.'

The process of addition, a combining process, is presupposed by subtraction. In the above instance the analysis of 3 must be expressed as $3=1+1+1$ (the sign of equality is here a sign of identity), and even such a case is not spared, but is brought to bear upon the theory under consideration. Taking, for instance, the addition, $5+7=12$, we can distinguish between the data given, the process of ideal activity and the result that ensues. Five units combined with seven units generate the notion of twelve. In the numerical system the unit is an ultimate, and it by self-multiplication and by combination of the self-repetitions generates in thought the notions of the different digits; so that in an addition some units as combined give rise to the relevant number. The result, however, is as much given as the data. We may put

together some elements and get a whole or a heap of parts, or we may get out of some smaller groups a larger whole. But putting together, even ideally, and getting a whole can hardly be regarded as an inference inasmuch as the content which we know in the result does not objectively fall beyond what is immediately given.

2. Comparison is a complex process which involves reference to at least two contents. The contents may both be given in presentation or in thought, or one may be given in presentation and the other in thought. A and B, for instance, are given. Our mind then passes from one to the other. "Comparison in the ordinary sense is a name applied to the intentional cross-reference of two or more given contents in order to establish between those contents as given a general or special identity, difference or partial identity (likeness)."¹ Comparison is an ideal process in which the contents in question are held before mind, and this is accomplished by the intentional cross-reference of the contents themselves. In short, abstraction is involved in comparison wherein we fix only on some aspects of the contents that are given. The result of the process varies and may be likeness or difference, equality or otherwise. So discrimination can well be brought under it. Now the point that is to be considered is whether comparison is a kind of inference. In the above instance A and B are given: our thought then operates on them, and we perceive likeness or otherwise between them. But it is plain enough that what we know in the end is directly apprehended. The comparative process is doubtless instrumental in bringing before mind the characteristic relation between A and B, but is not known to lead to something beyond our direct perception. Thus,

¹ Bosanquet, *Logic*, Vol. II, pp. 19-20.

comparison is found to be lacking in the fundamental feature of inference.

3. Recognition at first view appears to be a case of inference. But a scrutiny will reveal its real nature. The recognition of a particular content admittedly presupposes a previous experience of it. For instance, I met a certain man in a train last night. To-day I meet him again at some other place. It will be of importance to see what happens in this experience of mine. My first experience of the man in question leaves behind in my mind an impression of his fundamental features, which go to constitute the relevant representation. On the second occasion, on the appearance of the man before me the relevant ideal content is roused up, a combinative process relating to this and the presented content ensues, and finally recognition follows as the result; knowledge in recognition can be expressed in the form "it is the same as," which represents knowledge of identity. In recognition not only an ideal representation of the content in question is involved, there is also the memory of the specific situation in which the content in question was first perceived. It now ought to be clear that recognition involves no inference. I may make the thing a little more explicit. Fixing on the result, we find that I know the "same as" of the content, or, in other words, its identity. But this identity known as attaching to the content given is held before mind and is hence immediate. Abstraction, comparison, etc., are elementary functionings of consciousness, which, while functioning, are not so much on the focus of consciousness; they are only subservient to bringing before mind the contents which are entertained in specific ways, and are, for that matter, involved more or less in all forms of knowledge. And it is idle to try to construe any of them into an inference in which one or more of them operate as subsidiary psychological processes.

4. Inference is often taken as much too potent in its function and much too wide in its scope. It is undoubtedly true that inference plays its rôle in the theorizing of many a metaphysician. But discussion as to the method and nature of metaphysical knowledge is *par excellence* metaphysical. So I cannot plunge into metaphysics when I am actually moving in a much humbler sphere. I shall here simply consider the claim that one particular metaphysical discipline among many others, namely, the Hegelian dialectic, drives us upwards through a continuous inferential operation. It is contended that in dialectic there is a starting-point which is subjected to some ideal activity and then something else follows as the result. And these processes are taken to represent the essential marks of inference. Dialectic is concerned, we are told, with an unfoldment of the ultimate structural principles of our experience as well as of Reality. The analysis it affords is, in a way, far deeper than we can have through introspection. It is as such highly abstract, and the region wherein it moves is for the most part ideal. It is no empirical process which is exemplified in ordinary individual experience. It is a methodical device formulated with a view to attaining to a definite philosophical end. So we cannot refer to any reproductive element as functioning in dialectic in so far as the forefront of the process is concerned. There we begin with a fundamental, though a partial, view of Reality, (partial character is revealed through contradiction), and consider whether Reality is adequately revealed through that category. On contemplation the category employed shows forth its insufficiency and leads on to its opposite. But there too we cannot rest for long; for that in its turn because of its inadequacy makes us revert to the first. In this way thought works and soon finds itself involved in self-contradiction. Out of such an entanglement thought extricates itself only

by evolving a third viewpoint which includes the former two that were contradictories as synthesised elements within it. Now I should ask : What is exactly the process there ? Broadly we can distinguish three processes ; first there is a transition from the starting-point to its opposite, secondly from the latter there is a return movement to the initial position, and finally from the situation of mutually cancelling contradictories there emerges a category which is a synthetic unity. Now, if any of these is regarded as an inference, there is no reason whatsoever why we should reject the rest as non-inferential ; every triad will then involve three distinct inferences. There may be no harm in it. But the main point is to ascertain if any of these processes is actually inferential. In dialectic we admittedly begin with a particular view of Reality, which, on reflection, is found to contradict itself and lead on to its opposite, and this process is repeated in the position newly arrived at. Then this situation of mutual cancellation is saved by a synthesising category that supervenes there. But in neither of these between the given situation and the emergent one can we bring in any sense of justification. In an inference there is always a pointing to a " not given " on the ground of the given. In dialectic, however, there cannot be even a forecast of what is forthcoming through contemplation. On the contrary, it is only from the standpoint of the emergent that we read back its relation to the starting-point. Thought, of course, gets at some new element in the form of the synthetic category, but, that, when arrived at, is as immediately given in thought as the starting-point. Thought indeed effects expansion of its sphere that way. But that is achieved through an immanent unfoldment of its structure. And this expansion it is difficult to construe into an inferential operation. It is now clear that the theory under review makes inference too wide,

so much so that it is not possible to make any distinction between an inference proper and the processes which are not really inferential. According to this theory, we must be inferring in having the elementary psychological functions of thought as much as in dialectic which is a very abstrusely formulated method of a metaphysical search. One is at perfect liberty to broach a theory of the fundamental features of thinking, knowledge or experience, and call it a theory of inference. I can have nothing to say against the whim of an individual. But when it is claimed that the theory so developed is based on an accurate analysis of the inferential process as such. I feel called upon to join issue with the theorist.

5. In an inference we begin with the given, a datum or data, and then on the ground of the given we come to know a content not given at the moment. We get the form of inference in "because or since P, or simply, P, therefore Q." The "therefore" is here doubly significant as it points to the fact that P is given and that Q follows from P, or P justifies Q. Some may, however, bring objections to this analysis. "It is commonly supposed," says Johnson, "that the premisses are the propositions first presented in thought and that the transition from these to the thought of the conclusion is the last step in the process. But in fact the reverse is usually the case; that is to say, we first entertain in thought the proposition that is technically called the conclusion and then proceed to seek for other propositions which would justify us in asserting it."¹

Johnson seems to suggest that the process of inference can be constructed piecemeal, and his contention proceeds from a confusion between the process of inference as it actually takes place and its explicit expression in argumenta-

¹ *Logic*, Part II, p. 12.

tion. To be sure, in discussions we often place first what is called the conclusion and then bring in its justification. But this does not necessarily show that there is a parallelism between this expression and the actual process of inference. It is contended that we may first entertain the conclusion-proposition and then search for the premiss-propositions. A proposition, according to Johnson, is what is proposed in thought, and the conclusion-proposition, as he himself says, is not asserted when it is presented in isolation. The "entertaining" of the conclusion-proposition cannot therefore be identical with its actual assertion, but must be identical either with the proposition being merely proposed or with something different from both assertion and being proposed. If the former, the proposition in itself is given in thought, and we have to admit that it has come down to thought along a high *a priori* road, and this is nothing but pure intuitionism. But, if the proposition in question is a case of pure intuition, there is no need for searching for a premiss that would justify it; for an intuition is no intuition, if it does not involve within itself the highest degree of certainty. Corroborative evidence may be brought in, but that even cannot construe the proposition in question into an element in an inference inasmuch as it does not add anything to the content of the intuition or to its certainty. If, however, the latter, we have to find something beyond, or rather between being merely proposed and being asserted. If a content is not merely proposed or asserted, and is at the same time entertained in some definite way, we may really find a line of approach.

Contents are often problematically entertained, and this sort of entertaining is expressed in the form "It may be so-and-so." There we cannot decide between belief or non-belief. There must, however, be something midway between the two. For want of any other adequate

expression, I may characterize it as a tendency towards belief. This tendency cannot, however, be self-created; it must have its own ground to stand upon. In other words, there must be some data to justify this attitude. And this shows that, when we pass from an "entertained" proposition (if entertaining is here significant) to its assertion on the ground of the premiss searched out, we in reality pass from the stage of the data clumsily or partially apprehended to that at which they are clearly and completely grasped, and, for the matter of that, from the stage of an inchoate inference to that of its explicit development. It is then clear that the theory that usually the conclusion-proposition is first presented in thought and then the premisses are searched out to justify its assertion is not based on an insight into the psychology of the situation in question, but on a confusion between the order in an inference and the order in the argumentation in which it is expressed.

6. In an inference we pass from a given content to one not given. But, if they are hard particulars, in the sense that they are absolutely isolated from each other, the passage from one to the other is out of the question. "It is plain," says Russell, "that where we validly infer one proposition from another, we do so in virtue of a relation that holds between the two propositions whether we perceive it or not."¹ It is undoubtedly true that, if P be the datum and Q the conclusion, we cannot pass from P to Q except in virtue of a relation between P and Q , which in fact justifies our passage. In some cases of inference, no doubt, we may find that there is hardly anything like what we understand by "relation," though there is invariably a justifying principle in operation.

Further, insisting on relation, we cannot reduce all inferences to one type.

7. According to some, a universal must be functioning within an inference. It is contended that the datum and the conclusion are two of the differences in which a universal is realized, and that between the premiss and the conclusion the universal constitutes a bridge. "It is possible to proceed in knowledge from content to content," says Bosanquet, "because the world as known consists of universals exhibited in differences, and the contents from which and to which we proceed are not shut up within their respective selves, but depend on a pervading identical character or universal of which they are the differences."¹ It is quite easy to get a case of inference so interpreted in what Mill calls inference from particulars to particulars. For instance, I find that John dies, Smith dies and Brown dies; and from these observations I conclude that Roberts also will die, and I do so, as it is contended, because of the fact that John, Smith, Brown and Roberts are those in whom the identity of man as such is the connecting link.* But we can hardly interpret the process of an inductive generalization in this way. When, on observing death in the cases of some human beings, we conclude that men are mortal we cannot possibly take the data and the conclusion to represent differences that fall within a universal, quite in the same way as the data themselves represent some of the differences connected by the identity of man. In the process itself there is doubtless a principle of procedure, and this I shall consider later. I may nevertheless point out at this stage that the principle that functions there cannot be interpreted as a universal

¹ *Logic*, Vol. II, p. 2.

* The statement should be modified: for in the case under consideration we cannot get an inference in Bosanquet's sense inasmuch as for the passage from some cases of mortality to some definite case of mortality mere identity is not adequate. This point I shall discuss later on.

involving what we get as the data and the conclusion as differences within it. Furthermore, in a case of syllogism also viewed in the light of this theory we meet with a difficulty which it is not easy to obviate. Thus, in "Man is mortal, Ram is a man, therefore, Ram is mortal" we can hardly take the contents in the data and the content in the conclusion as differences falling within a universal. Even omitting the major as a datum, and viewing it as a function we do not find a way out; we can regard individual human beings as differentiations of a selfsame universal; but in passing from the minor, "Ram is a man" to the conclusion, "Ram is mortal," we do not find merely the universal "humanity" as necessitating the transition from the data to the conclusion. If the notion of mortality were already involved as an element in the concept "man," there would be no occasion for an inference. If, on the other hand, there is really an inference, it is not due to the fact that Ram-man, and Ram-mortal are some of the differences of the universal "humanity" within the same individual so that one of them being directly given we reach out to the other on the strength of the given through the functioning of the said universal. I may bring in another instance, such as "A is to the right of B, B is to the right of C, $\therefore$ A is to the right of C." Here but for the identity of B in the data we could not pass from A to C. The identity of B as in itself, in the sense that B in "B is to the right of C" is identical with B in "A is to the right of B" is something different from the universal of which B is a difference. B's known identity, that is, that the second B is the same as the first is all important for the inference; but no such identity can be extended to A and C. It may be argued, and it is true, that the identity of B alone is not sufficient for the inference; for we do not deal with A, B and C in a mere abstraction, but view them as being in some definite relations. The relations embodied in

A-B and B-C are spatial, and the relations are of the same kind, namely, "to the right of." It is then not possible, even from this point of view, to secure an interpretation of the inference that would accord with the theory under discussion. "To the right of" is by itself an abstraction, and does not hold of anything in the concrete. Again, from "A is to the right of B," and "C is to the right of D" we can infer nothing; for there is no identity of content combining the premisses. So the process in the aforesaid inference is far too complex to admit of Bosanquet's interpretation. Bosanquet appears to be much too enamoured of universals when he says "The entire content of the universal, so far as recognised in the necessity that unites the differences, is the true content of every inference."¹ A universal as an abstract identity is nothing. It is, truly viewed, an identity realized and ever realizing itself in differences; so that whenever we apprehend a universal we apprehend a complex situation involving differences, at least some differences; for we cannot possibly exhaust the differences necessarily united by an identity. The whole is then apprehended immediately. It is not that first a datum is given and through it something else is then mediately grasped. When some differences are found to be connected by an identity running through them, such that they become mere abstractions as apart from one another, they are said to constitute a system. So the problem appears in another form. I may now ask: Do we actually infer anything when we know a system as such? To take, for instance, the case of the human organism, it is to an ordinary man a thing among other things. And to apprehend it as a system is not merely to see it as an object, but rather to apprehend it as a whole with parts involving systematic relations,

¹ *Logic*, Vol. II, p. 9.

which is a complex content for thought. A space of time may be required in bringing before our mind the details. But this time element does not in any way effect a change in the situation and thereby bring in anything of inference.

Bosanquet's view of inference is made more explicit in his "*Implication and Linear Inference*." "All inference, then is within a connected system," says he, "and consists in reading off the implications which this system, construed as one with the whole of knowledge so far as relevant, imposes upon some of its terms."¹ I put off till the next chapter the discussion as to whether the passage from data to conclusion can be characterized as "reading off implication." For the present, I shall do well to determine how far a "system" enters into the situation of inference. If a system be anything it is a whole of parts cohering with one another in such a way that they can have their respective being only as occupying their respective positions within the whole and performing their respective functions. Hence a system is always to be found and not made. But it may be contended that a system may as well be constructed as in the case of a mechanical whole or a machine. But it goes without saying that a machine is an artificial whole. It is, no doubt, constructed by effecting an arrangement of some elements, so that they in their combination do contribute to a definite end. This arrangement itself is none the less objectively determined. And this shows that the distinction that is often made between the artificial and the natural is not absolute. The more important point to be discussed is, however, how does the notion of a "system" arise in our mind? A machine may be regarded as a system. But there is an important difference between it and another kind of whole in which compactness is more complete.

¹ *Implication and Linear Inference*, p. 10.

While in the former the parts can persist in their being as apart from the whole, in the latter the relation between the parts and the whole is reciprocal, in the sense that the whole is a whole of parts and the parts have their being only in the whole. In a mechanical whole there is doubtless an aspect of a "system." But it is lacking in another which is vastly more important. It is for this reason that a machine is to be characterized as a pseudo-system. So, for the origin of the notion of "system" as such we have to look elsewhere. Can we then say that systems as such are given in experience? In some situations we can observe some systematic connections between some facts or elements, and it may be that we cannot exhaust the details of any determinate given whole. If a universal as unifying the differences in which it expresses itself be characterized as a system, we find that it is, or can, never be completely given. Indeed some differences as unified by a universal may be given in experience, but, however much we may multiply the number of differences, we are still left with some only. Without all the differences, in which a universal is realized we cannot possibly get a whole quite articulate; with some of the differences the most that we can get is a whole in the making. This will be true, to a greater degree, of the whole universe conceived as a system; for the universe as an unconditioned whole is never given in experience. Further, we cannot study exhaustively the coherence of the facts of the world. By investigations and experiments we can at most bring to light some systematic connections. But "some" here cannot justify any passage to "all" as on the ground of them there can be no inference whatever as to the whole as a system. There can be no principle of identity to form the requisite bridge. We do not know what further facts are and what their features. Hence I have to say that the notion of "system" is, truly speaking,

a posteriori-a priori, in the sense that it is not a generalization from experience and is at the same time derived by way of a presumption from our experience of systematic connections of some facts. It is then clear that the notion of "system" being *a priori*, a system as such cannot be objectively given in its completeness in our concrete experience. And this brings us to the main point, which is: if a system as such can never be experienced, how can it at all come to be the content of an inference? Even allowing in the case of an artificially constructed mechanical whole, that a system is in a way given, we have yet to determine how a system as such can function as the basal principle of inference.

Now a system is such that the variation of an element in it is an index to the variations of all the others, and inference from one element to another is possible in virtue of a necessary connection between the two. The connection itself is made possible through the whole which expresses itself in the parts. But, in so far as inference is concerned, the connection is vital, and in the process itself there need be no reference to any system as the ground of the transition from data to conclusion. The case of an inference is taken as somewhat analogous to that of a judgment. The content of a judgment presupposes conditions that make it possible. But the full conditions cannot be exhausted until we have exhausted the whole series of facts of the universe. It is to be noted that the knowledge of the content as immediately given and fixed on in a judgment, does not in any way involve reference to the conditions that contribute to the appearance of the content in presentation. By knowing the conditions of a content we may know much more about it; but that does not in any way enhance our knowledge of it all in so far as it is given. So reference to the conditions of a content is wholly irrelevant to judgment *qua* judgment. In an inference we pass from content to content, not abruptly, nor without

any connecting link. In some cases of inference the link appears to be a systematic connection between the contents in question, so that from the given one we may pass in thought to the other. We may press a why and a wherefore of the possibility of a systematic connection, and, in the long run, we may be obliged to presume something like a system in which facts are related and exhibit systematic connections. But it is hard to see how all these paraphernalia could be relevant to inference as such. An inference about any fact or facts of our experience is not evidently concerned with the whole universe, and the data in an inference are never referred to any system whatsoever. In it our thought passes from content to content in virtue of some connecting principle evidenced by experience. And it is due to a confusion between a system as such and a systematic connection that inference is forced into a sphere where it cannot survive long.

It can be safely asserted that judgment proceeds piecemeal ; it at a time fixes on this or that content. Therein the function of idea as meaning points to the fact that grouping of things have already been effected in a large measure. These groupings under meanings are significant for thought-function in judgment, which is an immediate approach to facts. Inference, however, being a mediate form of knowledge needs connective principles because of which we pass from content to content. At the stage of inference far too many facts are known to be necessarily connected with one another. But these by themselves cannot constitute a system ; for they by themselves are not complete. A process of systematization is, of course, set in by the inferential function of thought. But the systematic connections are not imposed upon the contents of experience by the knowing-function of thought ; they are rather found in and through experience. So I may say that in our inferential knowledge we are well on the

way to a systematic whole in our experience by way of implication. But from this it is not clear how a "system" as such can serve as the structural principle of inference. Inference as being a distinctive form of knowledge involves the mediation of a given content or contents, and in its process proceeds with a systematic connection which justifies the transition from datum to conclusion.

8. It will not be out of place here to consider the question of the conditions for the validity of the inference, for instance, " $P, \therefore Q$." It goes without saying that all inferences cannot be adapted to the form " $P, \therefore Q$ " in which we pass from P to Q in virtue of the relation of implication between P and Q . Analysis of the forms of inference will be taken up in the next chapter. Let me here concern myself with the distinction some logicians make between constitutive conditions and epistemic conditions of an inference. "It will be noted," says Johnson, "that the constitutive condition exhibits the dependence of inferential validity upon a certain relation between the contents of premiss and of conclusion; the epistemic condition upon a certain relation between the asserting of the premiss and the asserting of the conclusion."¹ Thus, in the above instance, the constitutive condition is: the proposition P and the proposition " P would imply Q " must both be true. On the other hand, the epistemic condition is: the asserting of P , and the asserting of " P would imply Q " must both be permissible without reference to the asserting of Q . I cannot here enter upon any discussion as to the conditions of the different forms of inference. I shall in the main consider here how far we can make a distinction between constitutive and epistemic conditions of an inference.

An inference is admittedly no process in the facts themselves. It is, on the contrary, a passage in thought

¹ *Logic*, Part II, p. 8.

from one content or more to another, and is hence an intellectual act. In the situation of the inference "P, ∴ Q" we may get simply P, or "P implies Q." But neither of these involves the actual assertion of Q. The assertion of both P and "P implies Q" is possible without any reference to the assertion of Q. And this possibility is not created by the assertions themselves, but is determined by the nature of the contents of the propositions P, and "P implies Q" which expresses a relation between P and Q. The data of an inference are no data unless they are asserted, and it is only on being asserted that they yield the conclusion. So we cannot drive a wedge between the content in the data and its assertion. If we do not find in the assertion of P, or in the assertion of "P implies Q" any reference whatsoever to the assertion of Q, this is not due to anything in the assertions, but to something in the very nature of the contents themselves, inference being a form of knowledge in which we fix on some data and on the strength of these pass on to the conclusion by way of a real extension of knowledge. Now, if the conclusion is already included in the data as an element, an inference in the situation is not possible. We may proceed by positing P and "P implies Q,"* and, if the assertion of Q is not involved in the former two, we know something new and thus get a case of inference, and this is in virtue of something general that we know about inference.

Now to come to the so-called constitutive conditions of an inference, if propositions be heaven-born things not in any way dependent upon being known for their being, there are doubtless immense possibilities for them. If on the other hand, a proposition is taken to be a factor

*Taking, for argument's sake, that "P implies Q" is a datum. (cf. Johnson's view.

in the act of judgment,* it is very difficult to conceive how a proposition can be true as apart from its being known as true. A content taken as in itself is nothing; a content as such is always a content for thought, and it is futile to abstract a content from being known. Inference then being a form of knowing is no mere subjective play of ideas or fancy; it rather represents a situation in which psychological processes are controlled by objective contents as known. So, as inference cannot be characterized as a process in the contents themselves, so also it cannot be taken as wholly subjective. In short, the word "conditions" is misleading. Anyway, if the conditions referred to be not psychological, but logical, then as they are conditions of a process which is subjectivo-objective, we cannot separate between the contents in question in their factual relations and them in their actual assertions. The assertion of P, and "P implies Q," and P and "P implies Q" must represent a single process in which we pass from the justifying data to the conclusion. Hence, if there are conditions of an inference, in fact there are some, they cannot be characterized as partly constitutive and partly epistemic—a bifurcation which is wholly artificial and is to be discarded altogether.

* Cf. Johnson's view.

CHAPTER X

THE FORMS OF INFERENCE

1. Inference, as I have indicated, cannot be made wide enough to cover all the various forms of knowing as well as the elementary psychological processes presupposed by them. It does not, in fact, involve any system or the whole universe as its basis. As a distinctive form of knowledge it is a passage in thought from a datum or data—the given as known to something else on the strength of the former. This is the fundamental feature of inference as such, and this conception quite squares with plain common-sense. It cannot nevertheless be said that all inferences are of one unvarying kind. Within its broad sphere the specific nature of an inference must be commensurate with the specific nature of the data dealt with. I may then roughly distinguish between two fundamental types of inference, namely, (1) the syllogistic and (2) the systematic.*

2. To take up the syllogism first. It may appear that I am going to resuscitate an age-worn superstition. I cannot settle at the very outset whether the syllogism is only an artificiality or an articulate form of inference, and I cannot say anything definite in regard to it except that it, though not the sole form of inference, is a form of inference which we have in our ordinary experience.

Critics of the syllogism are many ; they invariably fix on the fallacy of *petitio principii* which is alleged to be

*This may provide a surprise to many as there is no reference to induction as a form of inference. Induction by itself constitutes a problem which requires a separate treatment. I may, nevertheless, assert in advance that an induction is no perception, nor an inference, but is a distinctive kind of knowing, which, for want of any better word, may be characterized as a generalization.

involved in it. Mill's attack on the syllogism is well-known, and it is he who makes the aforesaid fallacy very important *in its association with the syllogism*. In a syllogistic inference there is admittedly a major premiss, and it is this premiss which is said to be the root of all evil. There the major in combination with the minor entails the conclusion, and the major is taken to be in the form, "All S is P." It is argued that in a syllogistic inference we do not get anything new; for what, we suppose, we know in the conclusion is already involved in the major. Let me take a concrete example, and preferably the hackneyed one, namely, "All men are mortal," Ram is a man, $\therefore$ "Ram is mortal." It may be contended that, as apart from "Ram is mortal" being true, the major "All men are mortal" cannot be true. We can here hardly make a distinction between the constitutive and the epistemic conditions of the inference and maintain that the syllogism is epistemically valid inasmuch as the assertion of "Ram being a man" and "Men being mortal" is permissible without any reference whatsoever to the assertion of "Ram being mortal." What is meant by the epistemic validity of an inference is simply this, that in the conclusion of it we get a real extension of knowledge. We know the datum or the data, and then draw the conclusion, and this is the process of inference. But knowing or knowledge as a subjective event is nothing, or simply an abstraction. Our assertion of the premisses and the conclusion by way of an extension of knowledge is after all controlled by the contents of the premisses in their relation. So the so-called epistemic validity is either nothing or stands on what is to be called simply the validity of the inference, which rests on the fact that the content "Ram—mortal," though not involved already in the contents of the premisses themselves, is drawn as a consequence from them. So the whole thing hinges upon

an acute analysis of the contents of the premisses. To begin with the major, we have to inquire as to whether the relation between "man" and "mortal" is analytical or synthetical. It may at first sight appear to be an arduous task to determine the relevant elements involved in the concept "man." Anyway, I cannot digress to discuss the problem of meaning or idea and its fundamental structure and function. This much, however, I can aver that the notion of "mortality" is not, to be sure, implied in the constitution of the concept "man." Were it actually implied and involved therein, an inference as to that would be out of the question; for in knowing that Ram is a man we also at the same time know that he is mortal. That the minor by itself is not sufficient to lead to the conclusion, and that it requires the functioning of the major in order to effect the transition, points to the fact that the content of the conclusion is not elicited from the minor alone. It may, however, be urged that trouble really begins with the major premiss; for "All men are mortal" cannot be true unless "Ram is mortal" is already true, Ram being one of all men. The point that is urged may seem to be quite plausible, but confusion, I must say, arises from a denotative interpretation of Aristotle's Dictum, namely, "Whatever is predicted of a class distributively can be predicted, in the same sense, of an individual included in that class." The difficulty is perhaps in regard to the notion of class, and that of inclusion of an individual in it. It may be contended that, if an individual is included in a class, then the predication that holds good of the class in question, holds good of that individual also. So the reiteration of the thing in the form of a conclusion is redundant. Some may seek to get over the difficulty by maintaining that an act of inference consists in making explicit in the conclusion what remains implicit in the premiss. But to say so is

to concede the point that the content of the conclusion is comprehended under either of the premisses or under both. It may now be urged that, if what we assert in the conclusion is implicit in a premiss or in the two premisses, what prevents our knowing it there and then? Further, if there is an actual case of implicitness, we cannot make out how the process of making explicit what is implicit can be characterized as an inference. If we begin with a given situation, it is quite likely that we cannot at the moment attend to all the aspects of it. It may be that we come to know an aspect of it later, previously unattended to, in virtue of our analytic attention. But this our knowledge cannot be exhibited in the form of an inference in which what we begin with will act as the datum justifying what we know in the end; for no justification is here needed as what we make explicit is immediately known as an element within the given situation. We should not therefore rely on any makeshift.

Let me then proceed with the analysis of the major and see how far the conclusion is involved within it. In "All men are mortal" the "all" is in a sense very significant and in another it is misleading. Truly speaking, the "all" is redundant; for the "all" does not add anything to what is meant merely by the "men." The "Men" or "all men" refers to the class of men. The "All" is then apt to suggest a collection or completed enumeration. But it goes without saying that a class is no collection; the notion of a class, or rather a general idea does not refer to this or that particular individual, or a group of individuals merely; it refers to a definite content realized in an indefinite number of instances. In other words, it fixes on a universal which lives in its relevant differences, only some of which can enter into concrete experience. So in the major "All men are mortal" we have got two universals—"man" and "mortal"

as related. This relation is necessary inasmuch as not even a single individual is excluded. The word "All" is inserted to indicate the comprehensiveness of the relation. And to avoid all confusion arising out of an attempted denotative view of the proposition, it is expedient to put it into the simple form "Man is mortal" in which the burden of the proposition is brought to the fore. In the proposition "Man is mortal," we do not think of any particular human being or a particular case of mortality, in his, or its, particularity. The proposition, in short, means that, whenever and wherever there is a man, he will die. And this necessity between the two universals is best expressed in a hypothetical, such as "If man, then mortal." This relation of necessity can further be characterized as the relation of implication. So the hypothetical in fact does not explain implication, but only expresses it. To bring in an example from Indian philosophy, "There is smoke in the yonder mountain, $\therefore$ there is fire in it." Here we find that smoke-content as such is distinct from fire-content. The latter is not in any way involved in the very constitution of the former. So while smoke in the hill is directly apprehended, fire is not perceived. And as we pass from the presentation of smoke in the hill to the assertion of fire as being over there, we really get an extension of knowledge on the basis of the given with reference to the concrete situation in question. But the transition from "smoke" to "fire," in the instance, cannot be in any way abrupt; for the passage from the datum to the conclusion takes place by way of necessity of thought. And this points to the necessary objective relation between smoke as such and fire as such, a relation which is expressed in the form "Smoke implies fire," or "if smoke, then fire." Thus we see that in a syllogism we first fix on a content and then pass on to the assertion of some other content on

the strength of the former, not as in itself, but in its combination with the relational function of itself and the conclusion-content.

3. I shall now consider how far implication can be identified with inference. With some logicians it does not matter whether the data in an inference are believed or merely supposed. Implication between two contents is expressed in the form of a hypothetical. So some do not hesitate to speak even of a hypothetical as an inference. The hypothetical itself provides a problem which is well worth considering. I cannot, however, here go into it. To say the least, a hypothetical cannot be construed piecemeal and cannot be taken as an ideal experiment in which we begin with a supposal to mark what possible consequence follows. It cannot be shown that a consequence can come out of a supposal all on a sudden without some definite connection having been previously determined between the supposed and what is regarded as the consequent. We cannot attribute any such potency to a supposal as generates not only the consequent-content in question, but also the necessity between itself and its consequent. If a content is given and points to another, it is not in virtue of the former being a random supposal. The necessity between the contents cannot be determined *a priori*; that needs a distinct reference to experience. We learn such a necessity through experience and express it in a hypothetical which is after all a compact whole representing a single and simple thought-function. Confusion really arises from the form of the hypothetical; for in it we seem to pass from one element to another. The form itself as determined by its corresponding thought-function is important; for in it we can detect the direction of the relation. Thus, in "If smoke, then fire" the necessity is from smoke to fire, and not from fire to smoke. Though we speak of smoke as antecedent and of fire as

consequent, yet we in fact do not speak of any particular smoke and any fire in particular. We are simply thinking of smoke as such and fire as such in their necessary connection. The two together in their connection is the content of the hypothetical "If smoke, then fire," which as such is an element in the inference in question, though in itself it is no inference. Even coming to a case of inference within a system which is made much of, if we find that we can actually pass from one element to another within it by way of inference, we can hardly reduce this act of inference to the mere reading off of the relation of implication between the two. The relation of implication expresses necessity between two elements, and as such may enter as an element into an inference. But this by itself cannot exhaust the full nature of the inference.

Implication is occasionally regarded as "potential inference." But the phrase is rather misleading; for, on the one hand, the so-called potential inference is no inference, and, on the other, it is an element in an inference; what is meant by "potential inference" is simply this, that implication which is an element in an inference, can function in a further inference or inferences. We must, however, guard against the confusion that a so-called potential inference is strictly an inference. The point that is under discussion will be made more explicit, if we consider the relation between the premisses and the conclusion of an inference. It will not be out of place here to mention that implication does not, as a matter of fact, enter as an element into all kinds of inference, and this will be revealed in the course of the analysis I am going to make. As has already been indicated, there is a major premiss in a syllogistic inference in which the former is one of the elements that form the basis of the inference by the relation of implication. Now we have to see whether implication itself is an inference. We

have to ascertain, in this connexion, the relation between the premisses and the conclusion. Taking the symbolic example, " $P, \therefore Q$ ", we find that we cannot infer Q from P but for a necessary relation between them, which is expressed in the form " P implies Q ." The whole thing then hinges upon whether there is a distinction or not between " $P, \therefore Q$ " and " P implies Q ." It is not that the word "implication" is always used in our ordinary speech in a certain definite sense. I can bring in cases in which the term "implication" is employed, and which give an air of plausibility to the position that implication itself is an inference. As we would have it, " A is red, therefore, A is coloured," or " X is coloured, therefore, X is red or green or brown, etc." It may be contended that in these cases we can hardly distinguish between the notion of "implication" and that of "therefore" and that it is in virtue of the relation of implication as expressed by the word "therefore" that we make an inference. Now we have to consider three things: firstly, the nature of implication insisted on, secondly, how far there is an inference, and, thirdly, the significance of the "therefore" as used in the inferences as the connecting link. It is clear enough that "red" and "colour" are not synthetically connected. On the contrary, the relation between the two is such that one is a determinate in which the other is determined. Colour in itself as apart from the determinate colours is nothing. If it is anything, it is so as determined in the different colours. So "Red is a colour" is a verbal proposition inasmuch as there we do not in the predicate bring in anything more than what is already contained and conveyed by the subject. When we pass from " X is red " to " X is coloured," we do not in fact pass from a datum to a conclusion as " X is coloured " is already involved in " X is red "; for red is one of the determinations of colour. And, if we begin

with the former and proceed to the latter, it is only in virtue of our analytic attention directed to the first proposition. It may, however, be contended that the inference is here really, “ ‘ X is red ’ implies ‘ X is coloured. ’ ” But the implication posited between the two propositions is yet to be explained. If there is an implication, it must be between “ red ” and “ coloured. ” But a little reflection will show that the “ implies ” is here equivalent to “ is, ” so that in “ Red is a colour ” the “ is ” refers to identity in essence inasmuch as “ red ” is one of the determinates of the determinable “ colour. ” A “ therefore ” cannot then, as we find, be used here as indicative of any inference. It can be used here in a loose sense to mark the transition in thought from “ X is red ” to “ X is coloured ” by way of analytic attention without involving any sense of justification.

Now we may consider how far the relation between the premisses and the conclusion of a syllogism can be indicated by “ implication. ” In a syllogism as in all other inferences the premisses are the data on which the conclusion is grounded, and the conclusion is said to follow from the premisses. There is, however, much confusion about this “ following. ” In the hypothetical “ If P, then Q, ” for instance, we oftentimes say that Q follows from P. If we can interpret this “ following ” both in a hypothetical and in a syllogism in the same way, there is a possibility of getting an inference as mere implication. As has been indicated above, in a true hypothetical we cannot begin with an antecedent and then pass on to a relevant consequent. The antecedent and the consequent in a hypothetical are significant only as conveying the necessity between them and the direction of this necessity. We cannot, however, say that the consequent follows from the antecedent exactly in the same way as the conclusion in a syllogism follows from the premisses. It

is very difficult to read the hypothetical "P implies Q" as "Q follows from P," where "following" may be taken to mean something more than mere "implying." Now, if, in a syllogism, we find the relation between the premisses and the conclusion to be mere implication, then there could be no inference; for implication is merely a condition of one kind of inference, and, if there be a real inference, the relation must be something other than implication. Truly speaking, there cannot be any such thing as implication as a relation between the premisses and the conclusion of an inference. Implication expresses necessity between some two elements. In a syllogism the major is a functional premiss embodying such a necessity, and the minor is the datum. We can think of these together on the one side and of the conclusion on the other. But in order to have the relation of implication between the premisses and the conclusion we have to apprehend them together. The difficulty, however, is: Where is then the inferential process? In an inference the premiss or premisses are first given, and when the conclusion is reached, the function of the premisses is finished. In the inference "P, ∴ Q," for instance, given P along with the major "P implies Q," Q follows as the conclusion. But we cannot obviously take the premisses and the conclusion in the same relation as obtains between P and Q in the major. In "P, and P implies Q, therefore Q" there is really no implication between Q and "P, and P implies Q." If there is implication we are still with a condition of an inference, and no inference is in sight inasmuch as the implicate in the situation of implication is not determined with reference to any particular point of space and time. It only involves a sense of possibility of such a determination, the relevant condition being fulfilled. In a syllogism the conclusion follows from the premisses, and this following means "being determined." Given a premiss or premisses, our

mind feels obliged to apprehend the conclusion as being determined by the premisses ; in other words, the premisses being given, we feel warranted in asserting the conclusion on the ground of them all. The word " therefore " in connexion with an inference is quite significant as it points both to the premisses as given and to the conclusion as being asserted on the ground of them. So it ought to be clear that, if the term " follows " is used to indicate the relation between the conclusion and the premisses of a syllogism, we cannot say that in a hypothetical the consequent follows from the antecedent. " Follows " means " is deduced." Hence the *implicate* is not actually deduced from the *implicans*. What is expressed in a hypothetical is, on the contrary, this, that the *implicate* can be deduced from the *implicans* when it is given. So I cannot take " implies " as the converse of the relation " follows from." It does not matter whether we use " entails " or " implies," if both are to mean the converse of " is deducible from." If " entails " is used to express the relation between the premiss and the conclusion, it must mean " determines in thought," and as such cannot be taken as equivalent to " implies."

It is of no use to make a distinction between material implication and formal implication.* According to Russell, " Socrates is a man " materially implies " Socrates is mortal." Truly speaking, the implication is not between these two propositions as such, but between the terms " man " and " mortal." Unless we know " if man, then mortal," or rather " ' Man ' implies ' Mortal,' " the former cannot point to the latter. In point of fact, all implication is formal¹ as the contents in the relation of implication are not known in their any concrete embodiment in so

* *Vide* L. Susan Stebbing, *A Modern Introduction to Logic*, pp. 221-26 and also Russell, *The Principles of Mathematics*, pp. 35-41.

¹ Russell seems to adopt in *Principia Mathematica* (Vol. I, pp. 21-22) usual instances of implication in place of material implication.

far as the relation of implication is concerned. Formal implication is regarded by Russell as general material implication. But what is the difference effected by the word "material" or "formal?" Formal implication, as it is contended, is material implication that holds "in every case of a certain set of cases." A case of formal implication is found in "All men are mortal," which is to be expressed in the form "'X is a man' materially implies 'X is mortal.'" Now here X does not mean any definite individual man; it means "any" "whatever," and the whole thing comes to "If man, then mortal," or simply "'Man' implies 'mortal'" which can in no way be taken on a par with "'Socrates is a man' implies 'Socrates is mortal'." Further, taking for argument's sake "X is a man" and "X is mortal" as distinctive propositions which are entertained or entertainable, we find that we cannot pass from "X—man" to "X—mortal" unless we know that "man" implies "mortal" in the same way as in the case of "Socrates—mortal." So I cannot see how so-called formal implication can be interpreted in terms of so-called material implication. If material implication is used to indicate the relation between the premisses and the conclusion of an inference, the word "material" would be so significant as to annul altogether the innate meaning of "implication." "Materially implies" would then mean simply the converse of the relation "follows from," and as such indicate that the premisses determine in thought the conclusion. Material implication is then a misnomer; for it is not implication proper, which as in itself, as has already been seen, is no inference, but only a condition of an inference.

In a syllogism there are admittedly two premisses: the major and the minor. The latter is fixed on as given and is as such a datum. The major, however, is no datum in this sense. It is, as Bradley points out, not given

as the minor is given and hence cannot be regarded as a datum. The major as embodying implication between the relevant contents in an inference functions in consciousness, but is not before mind quite as the minor. However, the major and the minor premisses together lead to the conclusion. In other words, the conclusion is apprehended as following from the premisses. The conclusion is, in short, an intuition following upon the premisses.* If one asks: Given some datum or data, how to get on to the relevant conclusion? The answer to this question is quite simple, and it is this, that we arrive at the conclusion on the strength of the given. But this is not to say that we can justify our knowledge that the conclusion is justified by the premiss or premisses. The most that we can say in respect of this is that we feel obliged to pass on to the conclusion.

4. It will not then be out of place here to discuss the distinction between the premiss and the principle of an inference. The major in a syllogism is not admittedly given except in some special cases at the time of inferring. It is none the less a premiss inasmuch as the minor by itself cannot lead to the conclusion, but requires the aid of the major which is after all an articulate piece of knowledge. A principle, or the principle of an inference, is, however, a fundamental presupposition of that form of knowledge, and is strictly to be distinguished from a premiss. A principle must function within an inference. But we are not necessarily conscious of it as functioning, though it can be apprehended as a matter of intuition through reflection. Some logicians, however, make a distinction between applicational and implicational principles of an inference.¹ The former is taken to formulate what is

* Cf. Bradley's view.

¹ Vide Johnson's *Logic*, Part II, pp. 10-26.

involved in the intelligent use of the word "every," the latter what is involved in the intelligent use of the word "if." The applicational principle is formulated as follows : "From a predication about 'every' we may formally infer the same predication about any given," and the latter as "From the compound proposition, X and X implies Y, we may formally infer Y." The applicational principle is illustrated in the inference, "*Every proposition can be subjected to logical criticism. Therefore 'matter exists' can be subjected to logical criticism.*" The implicational principle is exemplified in the inference, "*If this can swim, it breathes ; it can swim, ∴ it breathes.*" In the former the proposition beginning with an "every" is called the applicational universal, and in the latter the hypothetical premiss is called the implicative. It is contended that these principles are employed in passing from the most elementary forms of inference to syllogism. Thus, it is pointed out that from "*Everything breathes, if able to swim*" we can infer "*This breathes, if able to swim*" in accordance with the applicational principle alone. And with an additional proposition such as "This can swim" we can infer "This breathes," the formulation of the syllogism being as follows : "*Everything that can swim breathes ; this can swim, therefore, this breathes.*" Now in the above instance of an applicational inference let us see how far there is an inference. In "Everything breathes, if able to swim" the "if" is quite significant. Obviously "breathing" does not go along with "everything" as such, but as being subject to a condition, namely, "If able to swim." In other words, "breathing" attaches to "everything" in virtue of the ability to swim. So the burden of the proposition is to express the necessary relation between "ability to swim" and "breathing," which is implication. The "everything" is introduced only to make explicit the universality

of the connection. It does not matter whether we use an "everything" or a "this" so long as "able to swim" is qualified by an "if"; for the "everything" includes the "this" also. In "This breathes, if able to swim" evidently we do not say that this is able to swim, or this breathes. So the proposition reiterates in a different form the necessity between "ability to swim" and "breathing." The "this" as such does not contribute in any way to the content of the proposition. We may, however, show in a different way that the "this" is here redundant. Through the application of the principle, as it is contended, we can pass from "Everything breathes, if able to swim" to "This breathes, if able to swim," and then conjoining this conclusion with the premiss "This can swim," we can get "This breathes." But, in point of fact, given "Everything breathes, if able to swim," and "This can swim," we can pass on to "This breathes." Then the middle operation, namely, the passage from "Everything, etc." to "This breathes, if able to swim" is unnecessary. In a syllogism the three things, *viz.*, implication, the given and the conclusion, are all that we can have. So it is difficult to make anything out of what is called the applicational principle of inference.

A distinction is nevertheless sought to be made between the proposition "Every proposition can be subjected to logical criticism" and "Everything that is able to swim breathes" by saying that in the latter the subject term contains an implicit characterizing adjective, *viz.*, "able to swim." The two propositions doubtless differ from each other in so far as their constituents are concerned. But they embody the same relation, namely, implication. Thus, "Every proposition can be subjected to logical criticism" is equivalent to "If there is a case of proposition, it is also a case of being subjected to logical

criticism." "Everything that is able to swim breathes" is equivalent to "A case of ability to swim is a case of breathing" which can be expressed in the form "If—then." The line of demarcation is, however, made from another point of view. It is pointed out that in the case of an applicational universal an inference can be drawn in accordance with the applicational principle alone which dispenses altogether with the minor premiss. Thus in "Every proposition can be subjected to logical criticism, therefore, 'Matter exists' can be subjected to logical criticism" the minor, namely, " 'Matter exists' is a proposition " is here said to be redundant ; for, as it is argued, to understand the meaning of the phrase "Matter exists" is to understand it to denote a proposition. We should not, however, confuse between an act of inference and its expression in language. In a certain case there may be no mention of the minor in the linguistic expression of the inference. But this does not show that there is no minor in the actual process of the inference. Strictly, we cannot pass from "Every proposition is subjected to logical criticism" to " 'Matter exists' can be subjected to logical criticism" abruptly. "Every proposition" does not in fact involve "Matter exists" as a distinctive proposition. So our passage is made possible by our knowledge of "Matter exists" as being a proposition. Our passage from the minor to the conclusion may be so quick that we may overlook the contribution of the minor without which the inference is broken-backed. If to understand the meaning of the phrase "Matter exists" is to understand it to denote a proposition, then this understanding of the phrase cannot but be kept distinct from the apprehension of the whole thing, namely, " 'Matter exists' can be subjected to logical criticism." Thus we find that the contention that an inference with an applicational universal dispenses with the minor premiss is all absurd. So the

distinction between applicational universal and the implicational disappears. And with the disappearance of this distinction the so-called applicational principle dwindles away.

There is, however, another point which should be discussed in this connexion, and that is the distinction or otherwise between premiss as such and the so-called applicational and implicational principles. "We may shortly express the distinction between a principle and a premiss," says Johnson, "by saying that we draw the conclusion from the premisses *in accordance with* (or through) the principle."¹ I may here ask: What is the meaning of "in accordance with"? The principles, it is said, show that the premisses are alone sufficient to justify the conclusion, and this in its turn shows that the principle referred to is not the core of an inference. So it is quite reasonable to ask: What about the principle itself? It is rightly pointed out that the principles discussed above cannot be taken as co-ordinate with the premiss or premisses as they admittedly show that the premisses are themselves sufficient to lead to the conclusion. A principle as in itself is, unlike a premiss, no piece of knowledge attained through perception or by way of generalization. The applicational and implicational principles as defined cannot be regarded as inferences as they in their turn will require further principles to guide the inferential operation in them, a principle of the principle of an inference being not intelligible. Now, if neither of the applicational and the implicational principles is a premiss, and if they show that the premisses themselves of an inference are sufficient for the conclusion, then there is no point in saying that we infer in accordance with the principles; for they do not function in the actual act of inferring. And a principle

¹ *Logic*, Part II, p. 23.

which is indifferent to the actual process of inferring is no principle of an inference. A principle of an inference is one thing, and a formulation of the general feature of it is another. The so-called applicational and implicational principles, when truly viewed, will be found to embody in two different ways a description of the situation of the syllogism, and as such cannot be regarded as principles of inference in the strict sense of the term. In a syllogism, apart from the premisses, there is a principle that operates there. Though the principle in itself is nothing peculiar to knowledge as such, yet its function along with, or rather within the premisses of a syllogism, is quite distinctive. In "if man, then mortal, Ram--man; therefore Ram--mortal" but for the identity of "man" in the major as well as in the minor we cannot pass from the premisses to the conclusion; for without it the premisses fall apart from each other, and no cumulative effect in the form of the conclusion can proceed out of them. The principle itself functions in the very act of inferring, but is not before mind just in its functioning. The major is also usually not before mind in its operation. But in some cases it may be as explicit as the minor and in others may be made explicit through retrospection. The principle of a syllogism is, however, never given in the sense in which the premiss or premisses are given; its status in an inference is purely functional. It can be grasped in an articulate way by one endowed with the insight of a psychologist or logician.

5. Let me then analyse the kind of inference which I have chosen to call systematic inference. In the inferences of this kind the distinction between the major and the minor premiss disappears, and there may be more than one principle operating in the actual act of inferring. The thing will be clearer if I take an example. We find a typical systematic inference in "A is to the right of B,

B is to the right of C ; therefore, A is to the right of C.” Now, obviously this inference cannot be adapted to the syllogistic form ; for in the premisses given we cannot distinguish between the major and the minor premiss. Neither of the premisses embodies anything which can be regarded as having been learnt from previous experience by way of generalization. But this is not tantamount to saying that the premisses are independent of past experience. The dependence of the premisses on past experience is psychological, and not logical, in the sense that we learn the relation and the general feature of the facts given in the relation in the context in question from experience, and it is not that we make an absolute beginning with the premisses of an inference of this kind. But the point that we should not miss is that the relevant experience or experiences through an ideal embodiment of a set of concrete facts become subservient to the situation of the knowledge of a content in an inference of this sort. That does not, however, constitute a premiss or a principle of the inference in question. It may be contended that we may supply the major of an inference through some relevant past experiences. Allowing that a major can be supplied that way, it cannot be shown that the inference in question becomes a syllogism. We may by our ingenuity formulate a major, such as “ Whenever a thing is to the right of another thing, and this second thing is to the right of a third thing, the first thing is to the right of the third thing.” Now this so-called major premiss, when scrutinized, shows that the premisses “ A is to the right of B ” and “ B is to the right of C ” are by themselves sufficient to lead to the conclusion. So it is in fact useless. Further, the above-mentioned major cannot possibly be brought down from heaven ; it must in fact be derived from some previous experiences. And the major is not in the least intelligible without reference to some particular cases

of inference of the nature indicated above. The particular inferences that are here in view are really the presuppositions of the major itself, and this brings out that there is a vicious circle. Hence the so-called major appears to be a makeshift. It should then be discarded as artificial and useless.

In the above instance we at once pass from the premisses to the conclusion. There must nevertheless be some principle to determine the process. If we reflect a little we shall find that the broadest principle—the principle of identity too is here operating; for without the identity of B in both the premisses there can be none of their combinative function. But identity by itself is not sufficient there. What we get in the conclusion is controlled by a further principle, namely, that which is indicated by the relation in question embodied in the contents of the premisses. And that is none other but space which, expressing itself as it does in the relation in the premisses, determines in co-operation with the principle of identity the transition from the premisses to the conclusion. I have no need here to discuss the ultimate nature of space and time. This much, however, I can say, and without fear of contradiction, that these notions—space and time are valid and work in so far as our ordinary experience is concerned. We perceive things and events in space and time, and space and time are never experienced as abstractions, as all apart from the spatial and temporal relations in which things and events are given in experience. On the other hand, the relations, spatial or temporal, are not sufficient in themselves as bare relations; for they possess a distinctive group-character whereby they are distinguished from each other (spatial *vs.* temporal), and also from other kinds of relations. And this distinctive character is furnished by space and time, or space or time, as the case may be. A symbolic

example of an inference involving temporal relations is :
 " A is prior to B, B is prior to C ; $\therefore$ A is prior to C."

We can find yet another kind of systematic inference in which " degree " along with " identity " is the operating principle. Thus, in " A is equal to B, B is equal to C ; $\therefore$ A is equal to C " the contents of the premisses are in the relation of equality, and, in virtue of the identity of B in both the premisses, are combined in their function to lead to the conclusion. The notion of degree, of course, is not anything wholly apart from that of equality. It is yet not wholly identical with equality. Degree, in short, represents a sphere in which ' equal,' ' less,' ' greater,' etc., are variants. There is, however, another kind of inference which, though not adaptable to the type instanced above, falls within the category of quantity. For instance, in " A costs 15s, B is $\frac{1}{2}$ of A or 2A ; $\therefore$ B costs 7 $\frac{1}{2}$ s or 30s." A in " A costs 15s " and A in " B is $\frac{1}{2}$ of A or 2A " refer to the selfsame content through the mediation of which the two premisses co-operate in their function. The relation between A and B is numerical, and in order to get to the conclusion this relation must be reckoned with inasmuch as it points to the numerical system which expresses itself or its nature in a specific way in the relation between 1 and $\frac{1}{2}$, 1 and 2, and so forth. So the numerical system as such and identity are the principles of the inference here.

A peculiar case of inference may be brought into consideration, such as " Mr. Smith is alive, but is not in this room, $\therefore$ he must be elsewhere." It may seem, on the face of it, very difficult to define in any articulate way the principle or principles involved in this inference. Clearly we cannot equate " He is elsewhere " with " He is not in this room " ; for the former is based upon the latter. The inference cannot also be interpreted as an implication which, as has already been indicated, means merely necessity

between two contents. From the analysis of negation previously made it is obvious that "not being in his room" is nothing like a content which can itself be given in experience. So implication is here out of the question. If we here at all use "implication," it will be a mere synonym for the inference which is to be explained. On scrutiny, the above inference will be found to be a clear case of disjunctive inference. In such an inference we begin with a disjunction in which some alternatives are proposed with reference to a subject, in the sense that the alterantives as such are incompatibles. But in a disjunction the incompatibility between the alternatives proposed is not all that we get; there is also the further thing that the subject in question is to be determined as either of the alternatives. Now, in the above instance, Mr. Smith as living has to assume either of the two alternatives—"being in his room" or "being elsewhere." Again the "elsewhere" stands for a disjunctive content as it means theoretically all the particular places except his room. And the original disjunction now appears to be a sort of double disjunction. But we cannot think of Mr. Smith to be present at a time disjunctively at an indefinite number of places. At a time he is at a definite place, and the alternative places are, theoretically considered, indefinite. From the practical point of view, however, the alternatives are limited by possibility. In "Mr. Smith is not in his room, $\therefore$ he must be elsewhere," the disjunction is directly between "his being in the room" and "his being elsewhere." He is not in his room, and it follows from this that he is at some other place which is definite in itself, but which we do not know as yet definitely. We can nevertheless well take the "elsewhere" to mean the sphere of the possible alternatives, so that we may get incompatibility between "being within this sphere" and "being in his room." Then on finding one of these to be false we affirm

the other. In the inference under consideration the premisses are "Mr. Smith is either in his room or elsewhere" and "He is not in his room." The alternatives are incompatible, in the sense that they cannot both be true of the subject at the same time. They cannot also both be false; for the sense of the disjunction is that the subject is to be determined to be one of the alternatives proposed. Thus we find that the alternatives are such that both cannot be true, nor can both be false. So in the inference the principles of contradiction and excluded middle are explicitly involved. The principle of identity is also there inasmuch as "being in his room" in the first premiss is identical with "being in his room" which is negated in the second.

I have so far considered some types of systematic inference, in which the principles functioning are found to be (1) space and identity, (2) time and identity, (3) degree and identity, (4) contradiction, excluded middle and identity. There would in fact be as many types of systematic inference as there are kinds of relation involved in the contents of the premisses. Now, some logicians are of opinion that the premisses in the so-called syllogism and, for that matter, in systematic inference, need not be two in number. The transition from the premisses to the conclusion, as it is maintained, is a matter of insight which is something quite personal. One endowed with great power of insight may, it is contended, draw a conclusion from any number of premisses at a time. But this claim cannot be substantiated by an analysis of the actual process of an inference. The premisses, in order to lead to the conclusion, must combine in their function, and it is the principle of identity that controls this combination. So two premisses are to be taken at a time, so that we may reach the conclusion through a middle operation within them, which is left out in the

end. In the situation of an inference a number of premisses may be given. But we can entertain only two at a time ; for we have to proceed with a combinative process through the operation of identity. In order that we may infer anything there must be functioning the principle of integration of the premisses. From "A is equal to B," "C is equal to D," "E is equal to F," etc. we cannot infer anything. But from "A is equal to B," "B is equal to C," "C is equal to D," "D is equal to E" we can infer "A is equal to E." Here we begin with A—B and then in getting B—C along with A—B we bring down A through B to C. Then, through C, A is brought down to D, and finally it is brought into connexion with E through D. Truly speaking, we do not jump from the given premisses to the final conclusion which we in fact reach by some stages. The operations on the premisses may be quick enough to lend the air of the unity of a single inference to a series of inferences ; but the fact remains that we cannot take by one sweep all the premisses as justifying the conclusion. It may be pointed out that the whole thing may depend upon the degree of insight brought to bear upon the situation. It may indeed be so. We should not, however, forget the distinction between intuition as such and inference which always leans on a justifying ground. So in the situation of an inference where a number of premisses are given we have invariably to combine in thought two premisses at a time and proceed by successive inferences to the final conclusion.

APPENDIX TO CHAPTER V

SOME THEORIES OF TRUTH

1.(a) According to some, the problem of truth arises out of a misconception. Thus, Mr. Wildon Carr analyses the current theories of truth and finds all of them erroneous. He is of the opinion that the solution of the problem is to be found in the philosophy of Bergson, which furnishes a fresh point of view. "The theory of Bergson," says he, "is that in the intuition of life we know reality as it is, our knowledge is one with our knowing; and in the intellect we possess a mode of knowing which is equally immediate, but the essential quality of which is that it externalises or spatialises reality. We understand this mode of knowing in recognising the purpose it serves, its practical advantage to us. The theory, therefore, resembles pragmatism in bringing the concept of utility to the aid of its theory of knowledge. But, we insisted, the resemblance is outward merely; for the essential tenet of pragmatism, that truth itself is a value, is fatal to the theory."¹ Mr. Carr cannot accept anything like mediation of idea in our knowledge. He subscribes to Bergson's proposition that reality is a vital surge, and that in intuition we know it as it is in itself. There we can hardly distinguish, we are told, between the process and the product. "Our knowledge is one with our knowing." So the problem of truth does not arise at all, or if it arise at all, it arises in a new form and is to be put down as all a matter of intuitive experience. He nevertheless allows another mode of knowing, namely, intellection which is as immediate

¹ *The Problem of Truth*, pp. 89-90.

as intuition. But this form of knowing is rather peculiar ; it consists not in representing reality as such, but in distorting it and creating illusions which are necessitated by the pragmatic conduct of our life.

Now it may be pointed out that, if intellection is a mode of knowing, and, if it is quite as immediate as intuition, its fundamental nature remains yet to be analysed out. In logic we are not concerned with anything ultra-empirical ; so I should avoid by all means muddling of metaphysics. It is, however, that we do, in fact, make a distinction between " true " and " false " in so far as our ordinary experience goes. It is, therefore, worth while to discover what it is that determines this distinction. Mr. Carr cannot make good his point by falling back upon pragmatism ; for he himself clearly distinguishes between his position and that of the pragmatists. According to him, truth is not a value, while according to the pragmatists, it is a value. In his opinion, truth is not to be understood in terms of practical life and not to be viewed as a workability. Following Bergson, he maintains that the intellect solidifies, so to speak, the *élan vital*, and brings into being the spatio-temporal order to serve the purpose of life. The act of the intellect is then essentially selective. But Mr. Carr practically evades the problem of the distinction between " true " and " false," which holds within our ordinary experience, by taking it up into the flow of becoming where it altogether disappears. So we have nothing to gain by going with the philosopher who is much too intoxicated with ' supreme surge ' to look into the details of our daily life.

(b) Though intuition is not spacious enough to accommodate within itself any reasonable theory of truth, yet intuition as a distinctive form of knowledge or experience may be made a basis for a theory of truth. Thus we are often told that the proper criterion

of truth is clearness and distinctness; when we are in possession of truth, it is claimed, in a particular situation of knowledge, we know it immediately and do not need anything extraneous to ascertain it.

Some try to discard this theory by saying that it all is based upon subjective certainty, which is really irrelevant in a situation of knowledge where there is an objective control.¹ It may, however, be pointed out in favour of intuitionism that intuition as a form of immediate knowledge does not imply any mere subjective certainty. In my sensible experience, a fact, say, a cow, is given, and I judge "There is a cow." Now the intuitionist will point out that the judgment "There is a cow" will be true only if there is actually a cow, and that that I know a cow I know immediately. Hence all that can be meant by the theory is that a judgment is known to be true not on the basis of anything outside of it, but on the basis of itself alone, which amounts to saying that truth in a particular case is known immediately. But this does not mean that this immediacy is nothing but subjective certainty. Or, to put the matter the other way about, if subjective certainty is taken to be the certainty which the subject concerned feels in a situation of knowledge, all forms of knowledge will be found to involve subjective certainty; even errors *qua* errors cannot lack it. There is, therefore, no point in saying that intuition is based on subjective certainty only.

The fact is rather that the intuitionist remains satisfied with a surface view of the situation of truth. There is no doubt that truth, whatever its context, is immediately apprehended. But this immediacy which is articulated as clearness and distinctness presupposes a criterion of truth wherewith we can come by a clear and distinct apprehension

¹ Hobhouse, *The Theory of Knowledge*, p. 489.

of truth. Or, if the immediacy of the apprehension preclude the possibility of any external criterion, we cannot stop short with it; we have rather to go deep into the matter and show the very structure of truth, and that truth is its own guarantee, so that a judgment to be true must fall back upon itself and must not require anything outside of it to make it true or to reveal itself to be true. Further, the word "intuition" is here misleading. Many things in our experience are regarded as matters of intuition, such as axioms of a science, postulates of experience, and, so on. But, if these are really intuitions they cannot be brought within the purview of truth and falsity, which are relevant only in the situation of a judgment which involves articulate ideation and requires a perceptual basis for the content claimed for.

(c) There is, however, a form of intuitionism which seems to go a step beyond the ordinary type in implementing clearness and distinctness by the notion of non-contradiction. A clear and distinct case of truth often turns out to be a case of falsity. In view of this it is maintained that mere immediacy will not do and that a judgment is to be taken to be true when there is nothing to contradict it. The main point of criticism, that is often urged against this theory is that the criterion of truth propounded is negative and as such can have little value. This is doubtless true. But to say merely that this conception or criterion of truth is negative is to touch only the fringe of the problem involved therein. On a closer examination we shall find that the theory makes truth tentative, so that in entertaining a judgment as true, we must have to say, we are also conscious of the possibility of the judgment turning out false. In that case every judgment must be in the form "S may be P," and not in the form "S is P," which is usual. In other words, every judgment would be problematic. But this is not warranted in the

least by experience. The negative conception or criterion of truth would serve a very good purpose if we could show in every situation of truth that there is in fact nothing to contradict the judgment in question. In that case, to know a judgment to be true will require omniscience. And, as we are no omniscient beings, in order to ascertain the truth or otherwise of a judgment we shall have to wait till the end of time. This is, however, absurd.

It may now be pointed out that I have missed the main point, namely, that non-contradiction means merely lack of contradiction and is not to be construed into "nothing to contradict." So it is maintained that, if a judgment is to be regarded as true, nothing should be presented in opposition to the content fixed on, and, for the matter of that, to the judgment in question. This is quite plausible. But, difficulty will appear, if we ponder a bit over the statement and its implication. I may then ask: Should we make any distinction between truth as such and non-contradiction? If we do not make a distinction between them, non-contradiction would itself be truth, and we have to admit that to say that a judgment is true is to say that it stands uncontradicted. But this makes truth negative and also entirely dependent upon the notion of falsity; for in saying that a judgment is to be taken to be true only when it is found to be uncontradicted, all that can be meant is that truth is nothing more than mere lack of falsity. In short, in so many words we give a theory of falsity instead of a theory of truth and thereby give primacy to falsity. But this is not justified by any consideration of the development of our knowledge. It cannot be shown that we come by the notion of falsity first and then acquire that of truth, which is intelligible only in terms of the notion of falsity. On the other hand, the fact is that in the history of our mental life it is the

notion of truth, and not that of falsity, that presents itself first, inasmuch as our consciousness starts with contact with concrete facts, and it is later that the notion of falsity is articulated in our consciousness functioning in the appropriate circumstances ; for falsity, whatever the theory of it, appears on the cancellation of the conditions that make for truth. Anyway, if we fix on non-contradiction as the fundamental characteristic of truth, we may be asked : What is this non-contradiction itself ? The situation of a judgment being cancelled or contradicted by another is quite intelligible as we often come on it, especially in correcting a perceptual illusion. Non-contradiction then, to be understood, must show some aspect of it on which we can fix. But, obviously we cannot get anything like that outside the judgment in question ; we have to look for that into the judgment itself. So it is evident that in representing truth as non-contradiction we are simply expressing negatively something that positively determines truth.

It may, nevertheless, be contended that non-contradiction is merely a test of truth. It is then plain that the notion of truth is the presupposition of non-contradiction as a test of truth and is not to be merged, as is implied by the analysis given above, with that of falsity. This will, however, be of no avail. It will, on the contrary, complicate the matter a good deal more. The question is : Is it that non-contradiction determines the truth of a judgment or that we speak of non-contradiction with reference to a judgment because it is true ? If we accept the first alternative, the only interpretation we can put upon this or that judgment which is held to be true is that it is not false, showing thereby that we cannot make the notion of truth articulate inasmuch as " not false " cannot possibly be identical with " true," though there is no denying that " not false " implies " true." If we,

on the other hand, find that the conditions of truth fall within the judgment in question, and, in the ultimate analysis, determines non-contradiction, non-contradiction as a test of truth must be, as has already been suggested, a mere negative way of bringing out the positive structure of truth, which is to be found in the judgment itself. Non-contradiction then can furnish neither truth nor a test of truth.

2. Let me now turn to a theory which has a hold on the field of philosophy. Pragmatism as a philosophical theory stresses the practical side of our life, our will and emotion, and has, as such, an appeal for ordinary matter-of-fact men. It is no wonder then that in some quarters it has been hailed as the sanest view of life and the world. Pragmatism may appear at first sight to be very attractive. If we, however, examine it narrowly, we shall find reason enough to repudiate most of its claims. Here a full critique of pragmatism is quite irrelevant. I shall be content to discuss in the main that aspect of it which has a direct bearing upon the theme under consideration. It is no use reiterating the common criticisms levelled against pragmatism; for it seems to be wholly unaffected by them. As Sir Sarvapalli Radhakrishnan puts it, "To criticise pragmatism is like flogging a dead horse."¹ It is then in my interest to take up the pragmatist theory of truth for consideration and draw out its implications and point to the difficulties involved therein.

"Truth," says William James, "is a property of certain of our ideas. It means their agreement as falsity means their disagreement with reality."² It may seem that the pragmatist theory of truth is nothing more than the theory of correspondence. But the difference between

¹ *The Reign of Religion in Contemporary Philosophy*, p. 225.

² *The Meaning of Truth*, Preface V.

the two will be clear if we only take note of the fact that agreement with reality William James speaks of is an agreement which is dynamic and cannot be there as a passive intellectual function. In short, an idea's agreeing is, according to him, a certain mode of working; an idea is not true from the very beginning, but is made true in the process of verification. Truth then consists in the process of verification or successful working. Now turning to the word "agreement" as employed by James, if we find that it is not a mere concession to those who still take the relation between idea and fact or reality to be the core of truth, we can point out that the word "agreement" implies the notion of truth as correspondence and that verification or working is only the test of truth. That these two things are distinct even in the mind of James at the outset of his speculation on truth is obvious. It is also the fact that, as he increasingly becomes enamoured of "working" and "workability," the question of "agreement," and the notion of truth as distinct from that of test of truth recedes into the background, and in the long run "working" or rather "successful working" comes to occupy the mind of the pragmatist, so much so that, what is originally started as a test of truth is raised to the status of truth itself. Anyway, turning to the point relating to verification of an idea and its truth, the first thing that is to be clearly grasped is that there is a confusion between an idea as such and a judgment. Here it is not relevant, nor is it possible here to discuss whether to have an idea is to judge. It has been indicated in my discussion on truth and its criterion that what distinguishes a judgment from a mere idea is truth-claim, which in its turn presupposes the situation in which the truth in question falls. All this, however, should not be brought in here; for the pragmatists seek to proceed by eliminating whatever is regarded as an intellectual function or act of thought.

Thus we are told that there is no theoretical or passive way in which an idea can agree with reality; it is all dynamic. What exactly is then meant is that we should not make, as is suggested above, any distinction between the notion of truth and the test of truth; for there can be no intellectual representation of truth, which, being through and through a process of verification, is practical. An idea cannot, therefore, have truth as one of its inherent features; it acquires and possesses truth as its property.

Now to get to some details; though an idea may be found to move us to some sort of activity in a particular situation, yet it is not true to say that an idea as such can start a process of verification. I think of a lion, for instance, in Curzon Park, that is, I have the idea "a lion in Curzon Park," which as such is all an imagination, and there is no reason whatsoever why I should move up and down to see whether there is actually a lion over there. My expectation of it there, whatever the ground for the expectation, is the least that is needed for a process of verification to start. So, if it is contended that an idea through a process of verification becomes true, where is the relevancy I may ask, of its verification? Verification obviously presupposes something definite that we verify. If that something is an idea itself, all that we verify is that an idea is an idea, in which case there is absolutely no reason why we should go beyond it inasmuch as we can have an idea only by fixing on it. If, on the other hand, verification is resorted to with reference to something about an idea, which is clearly its representing a reality or an aspect of it, the word "verification" is not only irrelevant, but also inappropriate; the idea's representing in the context of the verification cannot be taken as an indefinite reference, but has to be definite in view of the content referred to being given in a concrete

embodiment. Nay, in the situation in which a content is given and fixed on, the relevant idea that functions there does not refer, but merges with it in virtue of its essentially referring to the content which is now given inasmuch as there is now no distance between the idea as idea and its objective counterpart. Now the question of doubt, and, for that reason, that of verification can arise only when the full conditions of truth do not fall within the situation of immediacy. And verification would there mean determining whether the experience in question coheres with other experiences. That there is a table, for instance, in front of me is said to be verified when I walk forward and meet with resistance. Thus the pragmatist theory seems to imply that truth cannot belong to a piece of knowledge in isolation, but that truth is a matter of two or more pieces of knowledge or experiences cohering with one another.

It may, however, be pointed out that the teachings of the pragmatists have been misconstrued and that successful working is all that can be meant by verification and can consequently be all about truth. We are, in short, asked not to interpret truth and all that in terms of anything like thought or intellect, but to understand it in the light of the practical result obtained therethrough. This indeed sounds plausible, and may have an appeal for those who are much too plunged in the gross practical workings of life to feel any need for a reflective consideration of the structure of truth. But on scrutiny the pragmatist theory of truth will be found to be based upon the confusion that, as some truth-claim leads to successful working in life, truth cannot be anything more than successful working. If we fix on some particular situation of knowledge, and, for that matter, of an idea, we shall find that the ideation in question is not arbitrary, and, if the selection of an idea is not arbitrary, and, if the manipulation of

our ideas in knowledge is not a subjective play—William James himself refutes the charge of subjectivism urged against him—we are constrained to admit that there is some objective control in the emergence of ideas in our minds, which in its turn indicates a mental attitude the pragmatists do not think it worth while to analyse. A desk, for example, is given in my sensible experience, and I begin with the knowledge “Here is a desk.” Now, is it that I do begin with the mere idea “desk”? Why the idea “desk” and not the idea “elephant”? Is there no distinction between an idea and a percept? And, if the pragmatists determine the truth of the idea “desk” in the context in question by the experiences of shaking it, placing books or some other materials on it, are they not falling back upon a theory of truth other than that which they so much advocate?

By way of illustrating the truth of his theory W. James narrates an imaginary episode. “If I am lost in the woods,” says he, “and starved, and find what looks like a cow-path, it is of the utmost importance that I should think of a human habitation at the end of it. For if I do so and follow it, I save myself. The true thought is useful here, because the house which is its object is useful. The practical value of true idea is thus primarily derived from the practical importance of that object to us.”¹ One can be in perfect agreement with James when he says that the practical value of true ideas depends upon the practical importance of their objects to us. True ideas may be practically valuable with reference to the practical importance of their objects. And this suggests a theory other than pragmatism; for from “true ideas are practically valuable” we cannot pass on to the position that the truth of true ideas consists in their practical

¹ *The Meaning of Truth*, p. 203.

value. "Following our mental image of a house along the cow-path," says James, "if we actually come to see the house, we get the image's full verification."¹ Now the point that is to be considered here is whether in following our mental image there is any intellectual reference beyond the image. If there is no such reference, do we follow it? On the other hand, if there is any reference we cannot attend to the image as a merely psychological existence without any direction towards the objective world. There is, truly speaking, a complex mental attitude which involves not only perception, but also judgment and inference. Such is the situation that I am lost in the woods and am without food and drink. I try my best to get out of the awkward situation, and in my attempt I chance to come on a cow-path which makes me infer a human habitation at the end of it. But it is clear that, had I not previously experienced the connection of cow-path and human habitation, I could not possibly think of the latter, while I perceived the former. It may be argued that there is no inference involved, the idea of a human habitation arising in my mind only through association. But the question is: Is there belief, or mere tendency towards belief? Whatever the answer to the question, this much is clear that the belief that there is a human habitation at the end of the cow-path is supported by my experience of the cow-path. The cow-path is the reason why I push on. And, if on arriving at the end of the cow-path I actually perceive a house, my claim that there is a human habitation at the end of it is verified. The idea of a house I begin with may be said to be made true by my subsequent perception of a house. But where is the guarantee of the truth of "This is a house"? If truth is always to be dynamically determined, I must

¹ *Op. Cit.*, p. 206.

have to refer to further experiences of mine, such as going inside, taking shelter, having something to eat and drink, and thus saving myself from starvation. I cannot, however, stop there also; for each of these experiences, in its turn, will have to depend for its verification, and, for that matter, for its truth, upon some other experiences where also the question of verification will in like manner crop up. Thus I am led on to an infinite regress, leaving the problem where it is and showing thereby that the verification of the original idea is impossible. The pragmatist's confusion between verification of an inference which affords us only belief and truth of a judgment, single and self-dependent, has caused immense difficulties. We cannot fly away from the facts of Nature nor can we shut our eyes to them. They are given in our perceptual experience, and truth or otherwise in a piece of knowledge must ultimately depend upon them for any justification or verification. As James himself puts it, "We may on occasion say that our idea meant always that particular object, that it led us there because it was of it intrinsically and essentially. We may insist that its verification follows upon that original cognitive value in it and all the rest, and we shall do no harm so long as we know that these are *short cuts* in our thinking. They are positively true accounts of facts as far as they go, only they leave vast tracts of fact out of the account, tracts of fact, that have to be reinstated to make the accounts literally true of any real case."¹ Here obviously W. James makes some concession to the correspondence theory in its ordinary form, and in so doing unknowingly weakens his orthodox position. If, on some occasion, an idea leads to its objective counterpart, because the idea in question is an idea of it intrinsically, the modes of knowing there indicate the

¹ *The Meaning of Truth*, p. 147.

real situation where correspondence is the determinant of truth. James, however, does not show any satisfactory reason whatsoever why he characterizes ideas as "short cuts" in thinking and prefers a circumbendibus. The pragmatists are hard put to it to explain by their theory our perceptual judgments, such as "This is a chair," "There is a house." Now, in accordance with the pragmatists' tenet, in the case of the first instance, we begin with the idea of chair in a context and make it true by working successfully with it, that is to say, by shaking, not, of course, the idea itself, but the object given, by sitting in it, and, so on. But then, what is the criterion whereby we can distinguish between a chair, a table and a desk, for instance, which will provoke the selfsame process of working? We can shake each of these in the same way, sit upon them all, and, so forth. And the pragmatists themselves would wonder why should one make such distinction as, for example, chair, table and desk. The working of the idea of 'house' will from the nature of the case lead to such practical consequences as taking shelter, being shielded from the sun and rain. But it is yet to be shown how to distinguish between a house as we understand it to be and a tent. The working of the idea 'elephant' perhaps involves carrying of an enormous weight. But, then, how to distinguish between an elephant and a high-horse-power machinery?

An approach to the pragmatists' theory of truth may be further made from a point of view more fundamental than any that has been considered above. W. James and the pragmatists in general seem to have made much of 'idea' and its verification and working. As has already been shown, an idea as such is neither true nor false, though it is that in a particular situation of judgment an idea is necessarily an element, or rather one half of the structure of truth. So strictly an idea cannot be

true, nor can it be false, and this is amply illustrated even by the pragmatists' analysis of the situation of verification or successful working. It is not difficult to see why no question of verification can arise in the case of an idea as a mere idea, because an idea, whatever its nature, no matter whether it is an image or an abstraction out of it, cannot drive us towards a definite context of our experience past, present or future; and without the implication or representation of something definite in a context verification or working as a process would hang in *vacuo*.

There is, however, point in the pragmatists' contention, namely, that some idea, the objective counterpart of which we cannot secure within our experience, is often found to be useful. It is very difficult to show that the idea of God is true or false, inasmuch as we cannot demonstrate or disprove the existence of the Being indicated. This idea then is not to be on that account discarded; for it would add to our well-being by enhancing our mental peace, the sense of ultimate security, and by making for unity of the world by fostering the spirit of universal brotherhood under one heavenly Father. We can well appreciate much that is there in this view. There is, however, nothing to justify the generalization that truth is nothing but usefulness. The point that is to be considered is whether we have to fix first on an idea and then elucidate the notion of truth of it by the concept of usefulness, or whether for the notion of truth we have to analyse the structure of our everyday experience, particularly the situation in which an idea which is meaning meets with the relevant fact meant. The first alternative is manifestly absurd; we do not, in fact, put off the matter of determining the truth or otherwise of this or that piece of knowledge till a philosopher comes forward to offer his theory of truth. Truth or falsity is, as a matter of fact, determined within the very course of our experience, and this shows

that what is proposed by the pragmatists on a speculative basis with reference to some such ideas as are incapable of showing forth their objective counterpart will not hold good within our perceptual experience; for in the former case verification is interpreted in terms of emotion, whereas in the latter verification, even on the pragmatists' showing, is found to involve experiences which would in their turn imply coherence. If we fix upon pragmatism as presented by W. James and leave out of account its extreme form as developed by Dr. F. C. S. Schiller, according to whom both truth and fact are evolved out of "primary reality" in the course of "cognitive functioning" of our experience which is purposive, we shall find that "practically satisfactory" which is equivalent to "true," can mean nothing more than the dynamism of our experiences, and that the proposed and the supposedly distinctive criterion of truth comes round to what the idealists call coherence. The pragmatists will, I am sure, resent very much this interpretation put upon their theory, as being unreasonable and outrageous to their point of view. That is nevertheless the inevitable implication of their position.¹

¹ Cf. Alexander, *Space, Time and Deity*, Vol. II, p. 265.

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ERRATA

PAGE	LINE	FOR	READ
22	15	" The book is not the room."	" The book is not in the room."
77	24	only is subjectively determined.	only as subjectively determined.
121	6	so far as its status is concerned.	so far as its status is concerned,
143	6	is in fact there is	is in fact there in
164	25	" if "	the " if "
183	15-16	" Brutus killed Caesar is just."	" ' Brutus killed Caesar ' is just. "
189	2	<i>in vacno</i> ;	<i>in vacuo</i> ;
217	(Foot-note line 2)	problemat	problematic

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