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The Principle of Logic

Preface to the First Edition

THE following work makes no claim to supply any systematic treatment of Logic. I could not pretend to have acquired the necessary knowledge; and in addition I confess that I am not sure where Logic begins or ends. I have adopted the title *Principles of Logic*, because I thought that my enquiries were mainly logical, and, for logic at least, must be fundamental.

I feel that probability is against me. Experience has shown that most books on Logic add little to their subject. There is however one reflection which may weigh in my favour. Both in England and in Germany that subject is in motion. Logic is not where it was, and can not remain where it is. And when one works with the stream a slight effort may bring progress.

I have in general not referred to those works to which I have been indebted. Amongst recent writers I owe most to Lotze, and after him to Sigwart. Wundt's book would have been more useful had it come to me earlier; and I may say the same of Bergmann's. I am under obligations to both Steinthal and Lazarus. And amongst English writers I have learned most from the late Professor Jevons. I may mention here that I should have owed certain observations to Mr. Balfour's able work, had I not seen it first when my book was completed. I should be glad to state my debts in detail, and in this way to express the gratitude I feel, but I doubt if it is now possible. I could not everywhere point out the original owners of my borrowed material, and I could not clearly state how much is not borrowed. I lay no claim to originality, except that, using the result of others' labour, I in some respects have made a sensible advance.

I wished at first to avoid polemics altogether. But, though I have not sought out occasions of difference, it is plain that too much of my book is polemical. My impression is that it will not suffice to teach what seems true. If the truth is not needed the reader will not work for it, nor painfully learn it. And he hardly will need it where he stands possessed of what seems an easy solution. Philosophy now, as always, is confronted with a mass of inherited prejudice. And, if my polemics bring uneasiness to one self-satisfied reader, I may have done some service.

I fear that, to avoid worse misunderstandings, I must say something as to what is called 'Hegelianism'. For Hegel himself, assuredly I think him a great philosopher; but I never could have called myself an Hegelian, partly because I

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can not say that I have mastered his system, and partly because I could not accept what seems his main principle, or at least part of that principle. I have no wish to conceal how much I owe to his writings; but I will leave it to those who can judge better than myself, to fix the limits within which I have followed him. As for the 'Hegelian School' which exists in our reviews, I know no one who has met with it anywhere else.

What interests me is something very different. We want no system-making or systems home-grown or imported. This life-breath of persons who write about philosophy is not the atmosphere where philosophy lives. What we want at present is to clear the ground, so that English Philosophy, if it rises, may not be choked by prejudice. The ground can not be cleared without a critical, or, if you prefer it, a sceptical study of first principles. And this study must come short, if we neglect those views which, being foreign, seem most unlike our own, and which are the views of men who, differing from one another, are alike in having given an attention to the subject which we have not given. This, I think, is a rational object and principle, and I am persuaded that a movement which keeps to this line will not be turned back.

In conclusion I may be allowed to anticipate two criticisms which will be passed on my work. One reader will lament that he is overdone with metaphysics, while another will stand on his right to have far more. I would assure the first that I have stopped where I could, and as soon as I was able. And in answer to the second I can only plead that my metaphysics are really very limited. This does not mean that, like more gifted writers, I verify in my own shortcomings the necessary defects of the human reason. It means that on all questions, if you push me far enough, at present I end in doubts and perplexities. And on this account at least no lover of metaphysics will judge of me hardly. Still in the end perhaps both objectors are right. If I saw further I should be simpler. But I doubt if either would then be less dissatisfied.

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All judgment involves the principle of Alternative; and the negation which it contains implies a positive ground on both sides, and a whole which is disjunctive and systematic (663-5).

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ESSAY X**A NOTE ON IMPLICATION (pp. 695-698)**

There is no sense in Implication unless it is indirect and through a whole. And there is no Implication (proper) where or so far as the whole is merely immediate (695).

The meaning of Implication rests on the fact of Immediate Experience. And all predication, being relational, is irrational except so far as conditional. Implication in the end is nonsense apart from that which is both below and above the discursive stage of mind and truth. No self-subsistent entity can imply another (695-7).

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And within the world of Truth the possible is still opposed to the actual (703-5). Why Logic can not be consistent ultimately (705). Designation-what (706). Recapitulation (706-7). Possible and Actual within a grounded whole (707).

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Reality and Truth-their true relation stated (711-12).

ESSAY XII**ON THEORETICAL AND PRACTICAL ACTIVITY (pp. 713-728)**

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Francis Herbert BRADLEY [*]

The Principle of Logic

CHAPTER III [1]

The Negative Judgement

§ 1. After the long discussion of the preceding chapter, we are so familiar with the general character of judgement that we can afford to deal rapidly with particular applications. Like every other variety, the negative judgement depends on the real which appears in perception. In the end it consists in the declared refusal of that subject[2] to accept an ideal content. The suggestion of the real as qualified and determined in a certain way, and the exclusion of that suggestion by its application to actual reality, is the proper essence of the negative judgement.

§2. Though denial, as we shall see, can not be reduced to or derived from affirmation, yet it would probably be wrong to consider the two as co-ordinate species. It is not merely as we shall see lower down (§7), that negation presupposes a positive ground. It stands at a different level of reflection. For in affirmative judgement we are able to attribute the content directly to the real itself. To have an idea, or a synthesis of ideas, and to refer this as a quality to the fact that appears in presentation, was all that we wanted. But, in negative judgement,[3] this very reference of content to reality must itself be an idea. Given X the fact, and an idea a-b, you may at once attribute a-b to X; but you can not deny a-b of X, so long as you have merely X and a-b. For, in order to deny, you must have the suggestion of an affirmative relation. The idea of X, as qualified by a-b, which we may write $x(a-b)$, is the ideal content which X repels, and is what we deny in our negative judgement.

It may be said, no doubt, that in affirmative judgement the real subject is always idealized. We select from the whole that appears in presentation, and mean an element that we do not mention ... When we point to a tree and apply the word 'green', it may be urged that the subject is just as ideal

* from: F.H. Bradley, *The Principles of Logic*, Vol. I, Oxford University Press, 1963 (first edition: 1883), p. 114-127.

Note_evgo: The page numbers correspond approximately to the numbers of the original text.

as when the same object rejects the offered suggestion 'yellow'. But this would ignore an important difference. The tree, in its presented unity with reality, can accept at once the suggested quality. I am not always forced to suspend my decision, to wait and consider the whole as ideal, to ask in the first place, Is the tree green? and then decide that the tree is a green tree. But in the negative judgement where 'yellow' is denied, the positive relation of 'yellow' to the tree must precede the exclusion of that relation. The judgement can never anticipate the question. I must always be placed at that stage of reflection which sometimes I avoid in affirmative judgement.

§3. And this distinction becomes obvious, if we go back to origins and consider the early development of each kind. The primitive basis of affirmation is the coalescence of idea with perception. But mere non-coalescence of an idea with perception is a good deal further removed from negation. It is not the mere presence of an unREFERRED idea, nor its unobserved difference, but it is the failure to refer it, or identify it, which is the foundation of our first denial. The exclusion by presented fact of an idea, which attempted to qualify it, is what denial starts from. What negation must begin with is the attempt on reality, the baffled approach of a qualification. And in the consciousness of this attempt is implied not only the suggestion that is made, but the subject to which that suggestion is offered. Thus in the scale of reflection negation stands higher than mere affirmation. It is in one sense more ideal, and it comes into existence at a later stage of the development of the soul.

§4. But the perception of this truth must not lead us into error. We must never say that negation is the denial of an existing judgement. For judgement, as we know, implies belief; and it is not the case that what we deny we must once have believed. And again, since belief and disbelief are incompatible, the negative judgement would in this way be made to depend on an element which, alike by its existence or its disappearance, would remove the negation itself. What we deny is not the reference of the idea to actual fact. It is the mere idea of the fact, as so qualified, which negation excludes; it repels the suggested synthesis,[4] not the real judgement.

§5. From this we may pass to a counterpart error. If it is a mistake to say that an affirmative judgement is presupposed in denial, it is no less a

mistake to hold that the predicate alone is affected, and that negation itself is a kind of affirmation. We shall hereafter recognize the truth which this doctrine embodies, but, in the form it here assumes, we can not accept it. The exclusion by fact of an approaching quality is a process which calls for its own special expression. And when we are asked to simplify matters by substituting 'A is Not-B' for 'A is not B', we find an obvious difficulty. In order to know that A accepts Not-B, must we not already have somehow learnt that A excludes B? And, if so, we reduce negation to affirmation by first of all denying, and then asserting that we have denied, – a process which no doubt is quite legitimate, but is scarcely reduction or simplification.

§6. There is a further objection we shall state hereafter (§16) to the use of Not-B as an independent predicate. But at present we must turn to clear the ground of another error. We may be told that negation 'affects only the copula'; and it is necessary first to ask what this means. If it means what it says, we may dismiss it at once, since the copula may be wanting. If the copula is not there when I positively say 'Wolf', so also it is absent when I negatively say 'No wolf'. But, if what is meant is that denial and assertion are two sorts of judgement, which stand on a level, then the statement once again needs correction. It is perfectly true that these two different sorts of judgement exist. The affirmative judgement qualifies a subject by the attribution of a quality, and the negative judgement qualifies a subject by the explicit rejection of that same quality. We have thus two kinds of asserted relation. But the mistake arises when we place them on a level. It is not only true that, as a condition of denial, we must have already a suggested synthesis, but there is in addition another objection. The truth of the negative may be seen in the end to lie in the affirmation of a positive quality; and hence assertion and denial cannot stand on one level.[5] In 'A is not B' the real fact is a character x belonging to A, and which is incompatible with B. The basis of negation is really the assertion of a *quality that excludes* (x). It is not, as we saw, the mere assertion of the quality of exclusion (Not-B).

§7. Every negation must have a ground, and this ground is positive. It is that quality x in the subject which is incompatible with the suggested idea.

A is not B because A is such that, if it were B, it would cease to be itself. Its quality would be altered if it accepted B; and it is by virtue of this quality, which B would destroy, that A maintains itself and rejects the suggestion. In other words its quality x and B are discrepant. And we can not deny B without affirming in A the pre-existence of this discrepant quality.[6]

But in negative judgement x is not made explicit. We do not say what there is in A which makes B incompatible. We often, if asked, should be unable to point out and to distinguish this latent hindrance; and in certain cases no effort we could make would enable us to do this. If B is accepted, A loses its character; and in these cases we know no more. The ground is not merely unstated but is unknown.

§8. The distinctions of 'privation' and 'opposition' (Sigwart, 128 foll.) do not alter the essence of what we have laid down. In a privative judgment the predicate 'red' would be denied of the subject simply on the ground that red was not there. The subject might be wholly colourless and dark.[7] But if 'red' were denied on the ground that the subject was coloured green, it would be the presence of an opposite quality that would exclude, and the judgment would then be based on positive opposition. This distinction we shall find in another context to be most material (cf. Chap. VI and Book III, II Chap. III §20); but, for our present purpose, it may be called irrelevant. In the one case as in the other, the subject is taken with a certain character; and by addition as well as by diminution that individual character may be destroyed. If a body is not red because it is uncoloured, then the adding-on of colour would destroy that body as at present we regard it. We may fairly say that, if the predicate were accepted, the subject would no longer be the subject it is. And, if so, in the end our denial in both cases will start from a discrepant quality and character.

§9. It may be answered, no doubt, that the subject, as it is now and as we now regard it, is not the same thing as the subject itself. In the one case, the subject rejects a Suggestion through a quality of its own, in the other it may reject an the strength of *our* failure. But I must persist in denying that this objection is relevant. In both cases alike the subject is taken as somehow determined ; and it is this determination which (whatever it comes from)

does give the subject a positive character, which in both cases lies at the base of the denial. No subject could repel an offered suggestion simply on the strength of what it was not. It is because the 'not-this' must mean 'something *else*', that we are able to make absence a ground for denial. We shall all agree that the nothing which is nothing can not possibly do anything, or be a reason for aught.[8]

These distinctions do not touch the principle we stand upon, but I admit they give rise to most serious difficulties.[9] And, mainly for the sake of future chapters, it may be well if we attempt here to clear our ideas. And (i) first, when we have a case of 'opposition', there the subject repels the offered predicate because it has in its content a positive quality, filling the space which the predicate would occupy, and so expelling it. If a man has blue eyes, then that quality of blueness is incompatible with the quality brown. But (ii), when we come to privation, two cases are possible. In the first of these (a) within the content of the subject there is empty space where a quality should be. Thus, a man being eyeless, in this actual content lies the place where his eyes would be if he had them. And this void can not possibly be a literal blank. You *must* represent the orbits as somehow occupied, by peaceful eyelids, or unnatural appearance. And so the content itself gets a quality, which, in contrast to the presence of eyes, may be nothing,[*] but which by itself has a positive character, which serves to repel the Suggestion of sight.

§10. But privation can rest on another basis (b). The content of the subject may contain no space which could possibly be qualified by the presence of the predicate. What rejects the predicate is no other determination of the content itself, but is, so far as that content itself is concerned, an absolute blank. It is difficult to find illustrations of this instance. If I say 'A stone does not feel or see', it may rightly be urged 'Yes, because it is a stone, and not simply because it is nothing else'. But we can find an example of the

* I may mention that, though contrast can not always be taken as holding true of the things contrasted, yet for all that it may rest on a positive quality. Thus, even in the case of a word like blindness, we should be wrong if we assumed that the blind man is qualified simply by the absence of sight from the part which should furnish vision. His mind, we can not doubt, has a positive character which it would lose if another sense were added.

privation we want in the abstract universal. The universal idea (cf. Sigwart, 130), if you keep it in abstraction, repels every possible extension of its character. Thus 'triangle', if you mean by it the mere abstraction, can neither be isosceles nor scalene nor rectangular; for, if it were, it would cease to be undetermined. We may invent a stupid *reductio ad absurdum*: This isosceles figure is certainly a triangle, but a triangle is certainly not isosceles, therefore —.

If we release the universal from this unnatural abstraction, and use it as an attribute of real existence, then it can not support such a privative judgment. For, when referred to reality, we know it must be qualified, though we perhaps can not state its qualification. Once predicate triangle of any figure, and we no longer can deny every other quality. The triangle is determinate, though we are not able to say how. It is only the triangle as we happen *not* to know it, which repels the suggestion of offered predicates. It is our ignorance, in short, and not the idea, which supports our exclusion of every Suggestion.

§11. In a judgment of this kind the base of denial is neither the content of the subject itself, nor is it that content *plus* a simple absence; for a simple absence is nothing at all. The genuine subject is the content of the idea plus my psychological state of mind. The universal abstraction, ostensibly unqualified, is determined by my mental repulsion of qualities. And the positive area which excludes the predicate really lies in that mental condition of mine. My ignorance, or again my wilful abstraction, is never a bare defect of knowledge. It is a positive psychological state. And it is by virtue of relation to this state, which is used as content to qualify the subject, that the abstraction, or the ignorance, is able to become a subject of privation. We shall see that, in this form, the universal may more truly be called particular (Chap. VI, 35) ; for it is determined and qualified, not by any development of the content, but simply by extraneous psychological relation.[10]

§12. The various kinds of negative judgement follow closely the varieties of affirmation. The immediate subject may be part of the content of present perception ('This stone is not wet'); or it may be found in some part of the series of space, or again of time, which we do not perceive ('Marseilles is

not the capital of France,' 'It did not freeze last night'). Again what is denied may be a general connection ('A metal need not be heavier than water'). In this last case it is of course the unexpressed quality at the base of the hypothesis (Chap. II, §50) which the real excludes.[11] But, in all negative judgement, the ultimate subject is the reality that comes to us in presentation. We affirm in all alike that the quality of the real excludes an ideal content that is offered. And so every judgement, positive or negative, is in the end existential.

In existential judgement, as we saw before (Chap. II, §42), the apparent is not the actual subject. Let us take such a denial as 'Chimaeras are non-existent'. 'Chimaeras' is here ostensibly the subject, but is really the predicate. It is the quality of harbouring chimaeras which is denied of the nature of things. And we deny this because, if chimaeras existed, we should have to alter our view of the world. In some cases that view, no doubt, can be altered, but, so long as we hold it, we are bound to refuse all predicates it excludes. The positive quality of the ultimate reality may remain occult or be made explicit, but this, and nothing else, lies always at the base of a negative judgement.

§13. For logical negation can not be so directly related to fact as is logical assertion.[12] We might say that, as such and in its own strict character, it is simply 'subjective': it does not hold good outside my thinking. The reality repels the suggested alteration; but the suggestion is not any movement of the fact, nor in fact does the given subject maintain itself against the actual attack of a discrepant quality. The process takes place in the unsubstantial region of ideal experiment. And the steps of that experiment are not even asserted to exist in the world outside our heads. The result remains, and is true of the real, but its truth, as we have seen, is something other than its first appearance.

The reality is determined by negative judgments, but it can not be said to be directly determined. The exclusion, as such, can not be ascribed to it, and hence a variety of exclusions may be based on one single quality. The soul is not an elephant, nor a ship in full sail, nor a colour, nor a fireshovel; and, in all these negations, we do make an assertion about the soul. But you can hardly say that the subject is determined by these exclusions as such, unless

you will maintain that, after the first, the remainder must yield some fresh piece of knowledge. You may hold that 'all negation is determination', if you are prepared to argue that, in the rejection of each new absurd suggestion, the soul exhibits a fresh side of its being, and in each case performs the special exclusion by means of a new quality. But it seems better to say that nothing is added by additional exclusions.[13] The development and application of these may proceed ad infinitum, but the process is arbitrary and, in the end, unreal. The same quality of the soul which repels one predicate, repels here all the rest, and the exclusion itself takes place only in our heads.

I do not mean to deny that a thing may be qualified by the exclusion of others, that the real character of a fact may depend on what may be called a negative relation. What I mean to say is that the negative judgment will not express this. It asserts that a predicate is incompatible, but it does not say that either the predicate, or the incompatibility, are real facts. If you wish to say this you must transcend the sphere of the negative judgment.

§14. We must not, if we can help it, introduce into logic the problems of the 'dialectical' view.[14] It may be, after all, that everything is just so far as it is not, and again is not just so far as it is. Everything is determined by all negation; for it is what it is as a member of the whole, and its relation to all other members is negative. Each element in the whole, itself the whole ideally while actually finite, transcends itself by mere self-assertion, and by mere self-emphasis brings forth the other that characterizes and negates it. If everything thus has its discrepant in itself, then everything in a sense must be its own discrepancy. Negation is not only one side of reality, but in the end it is either side we please. On this view it would be doubtful if even the whole is positive; for it is just so far as by position it disperses itself in its own negation, and begets from its dispersion the opposite extreme. It is doubtful if we may not transform the saying that 'Everything is nothing except by position', into 'Everything by position is its proper contrary, and nothing by position is all and everything'.

If this is so, there would remain no quality which is simply positive; and logical negation, in another sense than we have given it above, becomes the soul and, we sometimes are inclined to think, the Body of the real

world. But we are not called upon to discuss this view (cf. Chap. V), for our result will stand in any case, I think, in its principal outline.

A mere logical negation,[15] it is fully admitted by the dialectical method, need not express a real relation. And, this being so, it seems the better course to consider it by itself as merely subjective, and to express the real implication of exclusives by an affirmative judgment, which sets forth that fact. What denial tells us is merely this, that, when *we* bring the discrepant up, it is rejected. Whether what repels it is entirely independent, or whether it has itself produced or solicited what it excludes, is quite irrelevant. And it is still more irrelevant to ask the question if the first rejection is merely coquettish, and will lead in the end to a deeper surrender. This all goes beyond what denial expresses, for that, merely by itself, is not asserted beyond our minds.

The dialectical method, in its unmodified form, may be untenable. It has, however, made a serious attempt to deal with the relation of thought to reality. We can hardly say that of those eminent writers who are sure that logic is the counterpart of things, and have never so much as asked themselves the question, if the difference and identity, with which logic operates, are existing relations between actual phenomena.

§15. To resume, logical negation always contradicts, but never asserts the existence of the contradictory. To say 'A is not B' is merely the same as to deny that 'A is B', or to assert that 'A is B' is false. And, since it can not go beyond this result, a mere denial of B can never assert that the contradictory Not-B is real. The fact it does assert is the existence of an opposite incompatible quality, either in the immediate or ultimate subject. This is the reason why the suggested A-B is contradicted; and it is only because this something else is true, that the statement A-B is rejected as false. But then this positive ground, which is the basis of negation, is not contradictory. It is merely discrepant, opposite, incompatible. It is only contrary. In logical negation the denial and the fact can never be the same.

§16. The contradictory idea, if we take it in a merely negative form, must be banished from logic. If Not-A were solely the negation of A, it would be an assertion without a quality, and would be a denial without anything

positive to serve as its ground. A something that is only not something else, is a relation that terminates in an impalpable void, a reflection thrown upon empty space. It is a mere nonentity which can not be real. And, if such were the sense of the dialectical method (as it must be confessed its detractors have had much cause to suppose),[16] that sense would, strictly speaking, be nonsense. It is impossible for anything to be only Not-A. It is impossible to realize Not-A in thought. It is less than nothing, for nothing itself is not wholly negative. Nothing at least is empty thought, and that means at least my thinking emptily. Nothing means nothing else but failure. And failure is impossible unless something fails; but Not-A would be impersonal failure itself.

Not-A must be more than a bare negation. It must also be positive. It is a general name for any quality which, when you make it a predicate of A, or joint predicate with A,[17] removes A from existence. The contradictory idea is the universal idea of the discrepant or contrary. In this form it must keep its place in logic. It is a general name for any hypothetical discrepant; but we must never for a moment allow ourselves to think of it as the collection of discrepant.

§17. Denial or contradiction is not the same thing as the assertion of the contrary; but in the end it can rest on nothing else.[18] The contrary however which denial asserts, is never explicit. In 'A is not B' the discrepant ground is wholly unspecified. The basis of contradiction may be the assertion A–C or A–D, C and D being contraries of B. But again it may perhaps be nothing of the sort. We may reject A–B, not in the least on the ground of A, but because A itself is excluded from reality. The ultimate real may be the subject which has some quality discrepant with A–B. For contradiction rests on an undetermined contrary. It does not tell us what quality of the subject excludes the predicate. It leaves us in doubt if the subject itself is not excluded. Something there is which repels the suggestion; and that is all we know. Sokrates may be not sick because he is well, or because there is now no such thing as Sokrates.

§18. Between acceptance and rejection there is no middlepoint, and so contradiction is always dual. There is but one Not-B. But contrary opposition is indefinitely plural. The number of qualities that are discrepant

or incompatible with A, can not be determined by a general rule. It is possible of course to define a contrary in some sense which will limit the use of the term; but for logical purposes this customary restriction is nothing but tumber. In logic the contrary should be simply the discrepant. Nothing is gained by trying to keep up an effete tradition. If a technical distinction can not be called necessary, it is better to have done with it.

§19. Contradiction is thus a 'subjective' process, which rests on an unnamed discrepant quality. It can not claim 'objective' reality; and since its base is undetermined, it is hopelessly involved in ambiguity. In 'A is not B' you know indeed what it is you deny, but you do not say what it is you affirm. It may be a quality in the nature of things which is incompatible with A, or again with B. Or again it may be either a general character of A itself which makes B impossible, or it may be some particular predicate C. That 'a round square is three-cornered', or that 'happiness lies in an infinite quantity', may at once be denied. We know a round square, or an infinite number, are not in accordance with the nature of things. But 'virtue is quadrangular', or 'is mere self-seeking', we deny again because virtue has no existence in space, and has another quality which is opposite to selfishness.

'The King of Utopia died an Tuesday' may be safely contradicted. And yet the denial must remain ambiguous. The ground may be that there is no such place, or it never had a king, or he still is living, or, though he is dead, yet he died an Monday. This doubtful character can never be removed from the contradiction. It is the rejection of an idea, an account of some side of real fact which is implied but occult.

§20. We may conclude this chapter by setting before ourselves a useful rule. I think most of us know that one can not affirm without also in effect denying something. In a complex universe the predicate you assert is certain to exclude some other quality, and this you may fairly be taken to deny. But another pitfall, if not so open, yet no less real, I think that some of us are quite unaware of. Our sober thinkers, our discreet Agnostics, our diffident admirers of the phenomenal region – I wonder if ever any of them see how they compromise themselves with that little word '*only*'. How is it that they dream there is something else underneath appearance, and first

suspect that what meets the eye veils something hidden? But our survey of negation has taught us the secret, that nothing in the world can ever be denied except on the strength of positive knowledge. I hardly know if I am right in introducing suggestive ideas into simple minds; but yet I must end with the rule I spoke of. We can not deny without also affirming; and it is of the very last importance, whenever we deny, to get as clear an idea as we can of the positive ground our denial rests on.

ADDITIONAL NOTES

- 1 This chapter contains some serious errors. I have since accepted in the main Dr. Bosanquet's account of negation. See his *K & R* and *Logic*. I have briefly discussed the whole matter in T. E. VI.
- 2 'That subject', i.e., as in one with a selected determination. See Chap. I, §§ 11 and 12.
- 3 The abstraction of the idea from all 'reference' is not defensible. See an Chap. I, § 10. There is always some region in which an idea is real. It is only where the perceived world is taken as the one real object, that other worlds are merely 'subjective' (§ 13).

As to whether affirmation and denial are co-ordinate, we may say that in the end they are so, because the conscious use of ideas as ideas implies both a positive and negative aspect. But denial can be called more 'reflective', in the sense that we become aware of it later. We must retain an excluded idea before we can know it as excluded. The beginning of affirmation, we may say, is an object before me changed ideally so as to lead to action. The beginning of negation is the exclusion of an ideal change in the object – this exclusion not being retained by the mind, though action is thereby prevented. By 'action' (I should add) is not meant necessarily action which is 'practical'. Thus it is not true that we have a separate suggestion and then consciously apply it. The attempt to identify may at first appear to us not as an attempt, but simply as the actual exclusion, where not the actual qualification. It is when we hold the suggestion, while excluding it from our perceived and selected object, that we first have denial in the proper sense of the word.

- 4 The 'suggested synthesis' (here and lower down) needs correction in the sense of the foregoing Note.
- 5 It is true that *a* excludes *b* because it is *a*. It is true that there is a ground and a Why, and that *in the end* you can not make this Why explicit. But the same holds good also of *b*, as distinct from and so as negative of *a*. On the other hand this

two-sided negation is at first implicit only and does not appear. You begin positively (as we saw above) with a designated object (Ro) qualified further ideally. It is only later and through reflection that, instead of such an object, Ro (ab), we arrive at a world qualified everywhere by distinctions, at once connected with and opposed to one another, and R so can write our object as



- 6 I have, here and everywhere, altered 'disparate' where in the original text it was used wrongly for 'discrepant'. I am quite unable to account for this mistaken use, which, I am sorry to add, recurs frequently, and for the sake of the reader has been now throughout corrected.
- 7 'Colourless and dark'. If 'dark' meant 'visibly dark' – which I do not think it did mean – there would be a mistake here. See Bosanquet *K & R*, p. 247.
- 8 On the subject of Incompatibility the reader is referred to *Appearance*, Appendix, Note A, and to Bosanquet's *Logic*.
- 9 These distinctions are (i) exclusion by a specified incompatible; (ii) exclusion of a quality from a space in a subject where that quality is looked for; (iii) exclusion from an assumed space taken as empty on the ground of absence, i.e. of my failure to find the quality there. If you were to drop the assumption made here, and were to reject the empty space, as being either meaningless or itself for some known reason excluded, the above exclusion would become sound. But at the same time it would cease to rest upon failure and mere privation. What on the other hand damns the privative judgment, as ultimate, is its assumption, based on mere ignorance, of an empty space in the character of the Universe. Where however you know positively that the Universe is in a certain respect determinable further, there your failure to find a particular qualification (a) is a ground for denial, just so far as you have reason to think your knowledge complete. But see the Notes on Chap. VII, §§ 13 and 28, and see T. E. VII. And cf. *Appearance* and *Essays*, the Indexes, s. v. *Privation*.
- 10 'Extraneous psychological relation' should be perhaps 'a distinction turned into a separation and made an exclusion on a mere extraneous psychological ground'.
- 11 'The unexpressed quality'. See on Chap. II, §50.
- 12 'Fact' here should be 'perceived fact'. And negation is 'subjective' in the sense that mere negation, mere exclusion, is an abstraction and is by itself really nothing at all. Cf. §§ i5-i9. Otherwise negation is not 'subjective', though it is more 'reflective' than is affirmation (§ 2).

- 13 'Nothing is added by additional exclusions'. It is true that the abstract negation takes no account of the 'how', which therefore, so far, may be the same. But to go beyond this is wrong (Chap. I, § 52). See T. E. VI.
- 14 'Dialectical view'. But, apart from this, in logic we may and must insist that Reality has to be regarded as a disjunctive totality, as the positive unity of diversities each of which is one and is not the others. In our intellectual world we must take every element as within a whole, and as qualified by its relations in that whole, and, further, as qualified by them internally. By 'internally' is meant that the element itself, and not merely something else, is qualified. Hence everything will imply its relations both positive and negative. On the other hand we must not say of anything that it is nothing beyond its implications—even though what else it is we are unable in the end to state. The problem of identity and diversity is, I agree, not in the end soluble (see Essays, pp. 240, 264). And our whole world, as merely intellectual, is not ultimately real.
- 15 'A mere logical negation'. The mere must be emphasized.
- 16 'Much cause' should perhaps be 'some cause'.
- 17 'Or joint predicate'. In a sense it never is anything but a joint predicate. See *Appearance*, Appendix, Note A.
- 18 The main point is this, that denial means exclusion from and by the real. Mere denial, however, rests on abstract exclusion, which, as abstract, is really nothing. Actually the real excludes because the real is qualified incompatibly, and may be so in a variety of senses, the whole of which variety is ignored by the abstract denial. See an §13.

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The Principle of Logic

CHAPTER V

The Principle of Identity, Contradiction, Excluded Middle, and Double Negation

§1. After discussing negative and disjunctive judgments, we may deal at once with the so-called 'Principles' of Identity, Contradiction, and Excluded Middle; and we will add some remarks on Double Negation.

The principle of Identity is often stated in the form of a tautology, 'A is A'. If this really means that no difference exists on the two sides of the judgment, we may dismiss it at once. It is no judgment at all. As Hegel tells us, it sins against the very form of judgment; for, while professing to say something, it really says nothing. It does not even assert identity. For identity without difference is nothing at all. It takes two to make the same, and the least we can have is some change of event in a self-same thing, or the return to that thing from some suggested difference. For, otherwise, to say 'It is the same as itself' would be quite unmeaning. We could not even have the appearance of judgment in 'A is A', if we had not at least the difference of position in the different A's; and we can not have the reality of judgment, unless some difference actually enters into the content of what we assert.

§2. We never at any time wish to use tautologies. No one is so foolish in ordinary life as to try to assert without some difference. We say indeed 'I am myself', and 'Man is man and master of his fate'. But such sayings as these are no tautologies.[1] They emphasize an attribute of the subject which some consideration, or passing change, may have threatened to obscure; and to understand them rightly we must always supply 'for all

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Note_evgo: The page numbers correspond approximately to the numbers of the original text.

that', 'notwithstanding', or again, 'once more'. It is a mere mistake to confuse what Kant calls 'analytical judgments'["**"] with tautologous statements. In the former the predicate is part of the content of the conception A, which stands in the place of, and appears as, the subject. But in every judgment of every kind a synthesis is asserted. The synthesis in Kant's analytical judgment holds good within the sphere of the conception; and the real subject is not the whole of A, but is certain other attributes of A which are not the attribute asserted in the predicate. In 'All bodies are extended' what we mean to assert is the connection, within the subject 'bodies', of extension with some other property of bodies. And even if 'extended' and 'body' were synonymous, we still might be very far from tautology. As against some incompatible suggestion, we might mean to assert that, after all misapprehension and improper treatment, the extended is none the less the extended. And, again, we might be making a real assertion of a verbal nature. We might mean that, despite their difference as words, the meaning of 'body' and 'extended' was the same. But mere tautology with deliberate purpose we never commit. Every judgment is essentially synthetical.

§3. The axiom of Identity, if we take it in the sense of a principle of tautology, is no more than the explicit statement of an error. And the question is, would it not be better to banish irrevocably from the field of logic such a source of mistake? If the axiom of Identity is not just as much an axiom of Difference, then, whatever shape we like to give it, it is not a principle of analytical judgments or of any other judgments at all. On the other hand, perhaps something may be gained if a traditional form can get a meaning which conveys vital truth. Let us try to interpret the principle of Identity in such a way that it may really be an axiom.

§4. We might take it to mean that in every judgment we assert the identity of subject and predicate. Every connection of elements we affirm, in short all relations and every difference, holds good only within a whole of fact.[2] All attributes imply the identity of a subject. And taken in this

** This is not the sense in which I have used "analytical". p. 48.

sense the principle of Identity would certainly be true. But this perhaps is not the meaning which, for logical purposes, it is best to mark specially.

§5. There remains a most important principle which, whether it be true or open to criticism, is at least the *sine qua non* of inference. And we can not do better than give this the name of principle of Identity, since its essence is to emphasize sameness in despite of difference. What is this principle? It runs thus: 'Truth is at all times true', or, 'Once true always true, once false always false. Truth is not only independent of me, but it does not depend upon change and chance. No alteration in space or time, no possible difference of any event or context, can make truth falsehood. If that which I say is really true, then it stands for ever'.

So stated the principle is not very clear, but perhaps it will find acceptance with most readers. What it means, however, is much more definite, and will be much less welcome. The real axiom of Identity is this: *What is true in one context is true in another.*[3] Or, If any truth is stated so that a change in events will make it false, then it is not a genuine truth at all.

§6. To most readers this axiom, I have little doubt, will seem a false statement. For the present it may stand to serve as a test if our previous discussions (Chap. II.) have been understood. If every judgment in the end is hypothetical, except those not directly concerned with phenomena-if each merely asserts a connection of adjectives, in this sense that *given* A then B must follow-we see at once that under any conditions it will always be true. And we shall see hereafter that in every inference this result is assumed as a principle of reasoning, and that we can not argue one step without it.

§7. We saw that such judgments as 'I have a toothache', in their sensuous form, are not really true. They fail and come short of categorical truth, and they hardly have attained to hypothetical. To make them true we should have to give the conditions of the toothache, in such a way that the connection would hold beyond the present case. When the judgment gave the toothache as the consequent coming according to law from the ground, when the judgment had thus become universal, and, becoming this, had

become hypothetical, then at last it would be really true, and its truth would be unconditional and eternal.

I know how absurd such a statement sounds. It is impossible, I admit, however much we believe it, not to find it in a certain respect ridiculous. That I do not complain of, for it is not our fault. But it is our fault if the common view does not seem *more* ridiculous. I say that 'I have a toothache' to-day. It is gone to-morrow. Has my former judgment become therefore false? The popular view would loudly Protest that it still is true, for I *had* a toothache, and the judgment now holds good of the past. But what that comes to is simply this. The judgment is true because answering to fact. The fact alters so that it does not answer; and yet the judgment is still called true, because of something that does not exist. Can anything be more inconsistent and absurd? If the change of circumstance and change of day is not a fresh context which falsifies *this* truth, why should any change of context falsify *any* truth? And if changed conditions make any truth false, why should not all truth be in perpetual flux, and be true or false with the fashion of the moment?

§8. We shall discuss this question more fully hereafter (Bk. II, Part I), but may here anticipate a misunderstanding. To ask 'Does space or time make no difference' is wholly to ignore the meaning of our principle. We ask in reply, 'Does this difference enter into the content of A? If it does, then A becomes *perceptibly* diverse, and we confessedly have left the sphere of our principle. But, if it does not so enter, then the truth of A is considered in abstraction from spaces and times, and their differences are confessedly irrelevant to its truth. We thus meet the objection by offering a dilemma. You have abstracted from the differences of space and time, or you have not done so. In the latter case your subject itself is different; in the former case it is you yourself who have excluded the difference.

We may indeed on the other side be assailed with an objection. We may be asked, 'What now has become of the identity? Has it not disappeared together with the differences? For if the different contexts are not allowed to enter into the subject, how then can we say what is true in one context is true in another? It will not be true in any context at all'. But we answer, The identity is not contained in the judgment 'S - P', since that takes no kind of

account of the differences.[4] The identity lies in the judgment, 'S - P is true everywhere and always'. It is this 'everywhere' and 'always' that supply the difference against which S - P becomes an identity. The predicate attributed to the real belongs to it despite the difference of its diverse appearances. We do not say the appearances are always the same, but the quality keeps its nature throughout the appearances. And with this reply we must here content ourselves.

§9. When we come to discuss the nature of inference we shall see more fully the bearing of the principle. It stands here as the result of our former enquiries, that every judgment, if it really is true, asserts some quality of that ultimate real which is not altered by the flux of events. This is not the place for metaphysical discussion, or we might be tempted to ask if identity was not implied in our view of the real. For if anything is individual it is self-same throughout, and in all diversity must maintain its character.

The Principle of Contradiction.

§10. Like the principle of Identity, the principle of Contradiction has been often misunderstood. And in the end it must always touch an a field of metaphysical debate. But, for logical purposes, I think it is easy to formulate it in a satisfactory way.

It is necessary before all things to bear in mind that the axiom does not in any way explain, that it can not and must not attempt to account for the existence of opposites.[5] That discrepant or incompatibles or contraries exist, is the fact it is based on. It takes for granted the nature of things in which certain elements are exclusive of others, and it gives not the smallest reason for the world being such in nature and not quite otherwise. If we ever forget this, the Law of Contradiction will become a copious source of illusion.

§11. If the principle of Contradiction states a fact, it says no more than that the discrepant is discrepant, that the exclusive, despite all attempts to persuade it, remains incompatible. Again, if we take it as laying down a rule, all it says is, 'Do not try to combine in thought what is really contrary. When you add any quality to any subject, do not treat the subject as if it

were not altered. When you add a quality, which not only removes the subject as it was, but removes it altogether, then do not treat it as if it remained'. This is all the meaning it is safe to give to the axiom of Contradiction; and this meaning, I think, will at once be clear, if we bear in mind our former discussions. The contrary is always the base of the contradictory, and the latter is the general idea of the contrary. Not-A for example is any and every possible contrary of A (Chap. III § 16).

§12. We have to avoid, in dealing with Contradiction, the same mistake that we found had obscured the nature of Identity. We there were told to produce tautologies, and here we are by certain persons forbidden to produce anything else. 'A is not not-A' may be taken to mean that A can be nothing but what is simply A. This is, once again, the erroneous assertion of mere abstract identity without any difference. It is ordering us to deny as a quality of A everything that is different from A, and in this sense not-A. But different and discrepant should never be confused. The former do not exclude one another; they only exclude the denial of their difference. The discrepant with A can never be found together with A in any possible subject, or be joined to it in the relation of subject and attribute.[6] The different from A does not exclude, unless you attempt to identify it with A. It is not A generally, but one single relation to A, which it repels.

As we saw before, there is no logical principle which will tell us what qualities are really discrepant. Metaphysics, indeed, must ask itself the question if any further account can be given of incompatibility. It must recognize the problem, if it can not solve it. We might remark that no thing excludes any other so long as they are able to remain side by side, that incompatibility begins when you occupy the same area ; and we might be tempted to conclude that in space would be found the key of our puzzle. But such other experiences as that assertion and denial, or pain and pleasure, are incompatible, would soon force us to see that our explanation is insufficient. But in logic we are not called upon to discuss the principle, but rest upon the fact. Certain elements we find *are* incompatible ; and, where they are so, we must treat them as such.

§13. There is no real question of principle involved in such different ways of stating the axiom as 'A is not not-A', 'A is not both b and not-b', 'A can

not at once both be and not be'. For if A were not-A, it would be so because it had some quality contrary to A. So also, if A has a quality b, it could only be not-b by virtue of a quality discrepant with b. And again, if A both were and were not, that would be because the ultimate reality had contrary qualities. The character in which it accepted A, would be opposite to the quality which excluded A from existence. Under varieties of detail we find the same basis, repulsion of discrepant.

A simple method of stating the principle is to say, 'Denial and affirmation of the self-same judgment is wholly inadmissible'. And this does not mean that if a miracle in psychology were brought about, and the mind did judge both affirmatively and negatively, both judgments might be true. It means that, if at once you affirm and deny, you must be speaking falsely. For denial asserts the positive contrary of affirmation.[7] In the nature of things (this is what it all comes to) there are certain elements which either can not be conjoined at all, or can not be conjoined in some special way; and the nature of things must be respected by logic.

§14. If we wish to show that our axiom is only the other side of the Law of Identity, we may state it thus, 'Truth is unchangeable, and, as discrepant assertions alter one another, they can not be true'. And again, if we desire to glance in passing at the metaphysical side of the matter, we may remind ourselves that the real is individual, and the individual is harmonious and self-consistent. It does not fly apart, as it would if its qualities were internally discrepant.

§15. Having now said all that I desire to say, I would gladly pass on. For, notwithstanding the metaphysics into which we have dipped, I am anxious to keep logic, so far as is possible, clear of first principles. But in the present instance the law of Contradiction has had the misfortune to be flatly denied from[8] a certain theory of the nature of things. So far is that law (it has been contended) from being the truth, that in the nature of things contradiction exists. It is the fact that opposites are conjoined, and they are to be found as discrepant moments of a single identity.

I need hardly say that it is not my intention compendiously to dispose in a single paragraph of a system which, with all its shortcomings, has been

worked over as wide an area of experience as any system offered in its place. My one idea here is to disarm opposition to the axiom of contradiction, as it stands above.[9] But I clearly recognize that, if not-A were taken as a pure negation, no compromise would be possible. You would then have to choose between the axiom of contradiction and the dialectical method.

I will say, in the first place, that whatever is conjoined is therefore *ipso facto* shown not to be discrepant. If the elements co-exist, *cadit quaestio*; there is no contradiction, for there can be no contraries. And, saying so much, I feel tempted to retire. But yet with so much I shall hardly escape. 'Have not we got', I hear the words called after me, have we not got elements which any one can see negate one another, so that, while one is, the other can not be; and yet have we not got very many conceptions in which these discrepant somehow co-exist? It is all very well to say, 'then not contrary'; but try them, and see if they are not exclusive.

It is plain that I must stand and say something in reply. But I think I shall hardly be so foolish as to answer, 'These conceptions of yours are merely phenomenal. Come to us and learn that knowledge is relative, and with us give up the Thing-in-itself'. For without knowing all that would be poured on my head, I can guess some part of what I should provoke. "You say 'give up the Thing-in-itself'? Why that is all that you have *not* given up. You profess that your knowledge is only phenomenal, and then you make the law of Contradiction valid of the Absolute, so that what it excludes you are able to know is *not* the Absolute. That is surely inconsistent. And then, for the sake of saving from contradiction this wretched ghost of a Thing-in-itself, you are ready to plunge the whole world of phenomena, everything you know or can know, into utter confusion. You are willing to turn every fact into nonsense, so long as this Thing-in-itself is saved. It is plain, then, for which you really care most. And as for 'relativity', it is you yourselves who violate that principle. Your turning of the relative into hard and fast contraries is just what has brought you to your miserable pass." I confess I should hardly care to subject myself to all these insults; and I had rather Mr. Spencer, or some other great authority-whoever may feel himself

able to bear them, or unable to understand them-should take them an himself.

If I chose to turn and provoke a contest, I know of another weapon I might use. I might say, 'Your conceptions are partial illusions. They are crude popular modes of representing a reality whose nature can not be so portrayed. And the business of philosophy is to purify these ideas, and never to leave them until, by removal of their contradictions, they are made quite adequate to the actual fact'. But, after all, perhaps I could only say this for the sake of controversy, and controversy is what I am anxious to avoid. And for this end I think that some compromise may perhaps be come to. Without calling in question the reality of negation, and the identity of opposites, are we sure that we can not understand that doctrine in a sense which will bear with the axiom of Contradiction? This axiom is not like the principle of Identity. It is a very old and most harmless veteran; and for myself I should never have the heart to attack it, unless with a view to astonish common-sense and petrify my enemies. And in metaphysics we can always do that in many other ways.

What I mean is this.[10] Supposing that, in such a case as continuity, we seem to find contradictions united, and A to be b and not-b at once, this may yet be reconciled with the axiom of Contradiction. A we say is composed of b and not-b; for, dissecting A, we arrive at these elements, and, uniting these, we get A once more. But the question is, while these elements are in A, can they be said, while there, to exist in their fully discrepant character of b and not-b if I do not mean to suggest that the union of contraries may be that misunderstanding of the fact which is our only way to understand it. For, if I felt sure myself that this were true, I know it is a heresy too painful to be borne. But, in the object and within the whole, the truth may be that we never really do have these discrepant. We only have moments which would be incompatible if they really were separate, but, conjoined together, have been subdued into something within the character of the whole. If we so can understand the identity of opposites-and I am not sure that we may not do so – then the law of Contradiction flourishes untouched. If, in coming into one, the contraries as such no longer exist, then where is the contradiction?

But, I fear, I shall be told that the struggle of negatives is the soul of the world, and that it is precisely because of their identity that we have their contradiction. It is true that the opposition which for ever breaks out leads to higher unity in which it is resolved; but still the process of negation is there. It is one side of the world which can not be got rid of, and it is irreconcilable with the non-existence of discrepant in a single subject. Each element of the whole, without the other, is incompatible with itself; but it is none the less incompatible with the other, which for ever it produces or rather becomes.

I am after all not quite convinced. If the law of Contradiction is objected against because, in isolating and fixing the discrepant, it becomes one-sided, is it not quite possible that, in denying the law, we have become one-sided in another way? If the negation itself, while negative on one side, is on the other side the return from itself to a higher harmony – if, that is to say, the elements are not discrepant without each at once, by virtue of its discrepancy and so far as it is discrepant, thereby *ipso facto* ceasing to be discrepant, then surely, in denying the law of Contradiction, we ourselves have fixed one side of the process, and have treated the contrary as simply contrary. The contrary which the law has got in its head, is the contrary that entirely kills its opposite, and remains triumphant on the field of battle. It is not the contrary whose blows are suicidal, and whose defeat must always be the doom of its adversary. It is incompatibles fixed as such, it is discrepant which wholly exclude one another and have no other side, that the axiom speaks of. But dialectical contraries are only partially contrary and it is our mistake if we keep back the other side. And if an opponent of the law reminds me that the existence of these two sides within one element is just the contradiction, that in the *b* which is contrary to not-*b* the implication of not-*b* makes it self-contradictory, then I must be allowed to say in reply that I think my objector has not learnt his lesson. The not-*b* in *b* is itself self-discrepant, and is just as much *b*: and so on for ever. We never have a mere one-sided contrary.

But it is one-sided and stationary contraries that the axiom contemplates. It says that they are found,[11] and no sober man could contend that they are not found. No one ever did maintain that the dialectical implication of

opposites could be set going in the case of every conjunction that we deny. It can hardly be maintained that there *are* no discrepant, except these contraries which at the same time imply each other. And the law of Contradiction does not say any more than that, when such sheer incompatibles are found, we must not conjoin them.

Its claims, if we consider them, are so absurdly feeble, it is itself so weak and perfectly inoffensive, that it can not quarrel, for it has not a tooth with which to bite any one. The controversy, first as to our actual ability to think in the way recommended by Hegel, and secondly as to the extent to which his dialectic is found in fact, can not only *not* be settled by an appeal to the axiom, but falls entirely outside its sphere. Starting from the fact of the absolute refusal of certain elements to come together, and wholly dependent upon that fact, so soon as these elements do come together the axiom ceases forthwith to be applicable. It is based upon the self-consistency of the real, but it has no right to represent that consistency except as against one kind of discrepancy. So that, if we conclude that the dialectic of the real would in the end destroy its unity, that has nothing to do with the axiom of Contradiction. Like every other question of the kind, the validity of dialectic is a question of fact, to be discussed and settled upon its own merits, and not by an appeal to so-called 'principles'. And I think I may venture to hazard the remark, that one must not first take up from uncritical views certain elements in the form of incompatible discrepant, and then, because we find they are conjoined, fling out against the laws of Contradiction and Excluded Middle. They, such as they are, can be no one's enemy ; and since no one in the end can perhaps disbelieve in them, it is better an all accounts to let them alone.

Principle of Excluded Middle. [12]

§16. The axiom that every possible judgment must be true or false,[13] we shall see is based an what may be called a principle. It is however doubtful if the axiom itself should receive that title, since it comes under the head of disjunctive judgment. We must not imagine that our axiom supplies the principle of disjunction. It is merely one instance and application of that principle.

§17. If we recall the character of the disjunctive judgment, we shall remember that there we had a real, known to be further determined. Its quality fell (i) within a certain area; and (ii) since that area was a region of discrepant, the real was determined as one single member. On this basis[14] we erected our hypotheticals, and so the 'either-or' was completed.

Excluded Middle shows all these characteristics. In it we affirm (i) that any subject A, when the relation to any quality is suggested, is determined at once with respect to that predicate within the area of position and negation, and by no relation which is incompatible with both. And (ii) we assert that, within this area, the subject is qualified as one single member. And then we proceed to our 'either-or'.

§18. Excluded Middle is one case of disjunction: it can not be considered co-extensive with it. Its dual and contradictory alternative rests on the existence of contrary opposites. The existence of exclusives without reference to their number is the ground of disjunction, and the special case of assertion and denial is developed from that basis in the way in which contradiction is developed from, exclusion. Common discrepant disjunction is the base, and the dual alternative of *b* and not-*b* rests entirely upon this.

§19. Excluded Middle is one kind of disjunction: and we must proceed to investigate the nature of that kind. (i) Disjunction asserts a common quality. In '*b* or not-*b*' the common quality asserted of A is that of general relation to *b*. (ii) Disjunction asserts an area of incompatibles. Affirmation or denial of *b* is first the area within which A falls. The evidence that it does not fall outside and that all the discrepant are completely given, may be called my impotence to find any other[15] (iii) Disjunction attributes to the subject A one single element of the area. And this part of the process does not call here for any special remark.

§20. We find however, when we investigate further, a point in which the axiom of Excluded Middle goes beyond the limits of disjunctive judgment. It contains a further principle, since it asserts a common quality of all possible existence. It says, Every real has got a character which determines it in judgment with reference to every possible predicate. That character

furnishes the ground of some judgment in respect of every suggested relation to every object. Or, to put the same more generally still, Every element of the Cosmos possesses a quality, which can determine it logically in relation to every other element.

§21. This principle is prior to the actual disjunction. It says beforehand that there is a ground of relation, though it does not know what the relation is. The disjunction proceeds from the further result that the relation falls within a discrepant sphere. We thus see that, on the one hand, Excluded Middle transcends disjunction, since it possesses a self-determining principle which disjunction has not got. On the other hand, in its further development, it is nothing whatever but a case of disjunction, and must wait for the sphere of discrepant predicates to be *given it as a fact*.^[16]

§22. The disjunction is completed by the fact that, when any predicate is suggested, the quality of every element is a ground of either the affirmation or the denial of the predicate. It compels us to one and to one alone; for no other alternative can possibly be found.

And here the opposition, directed before against the axiom of Contradiction, must again be confronted. It is false, we are told, that A must either be c or not-c. We have often to say 'both', and sometimes 'neither'. But I think perhaps the discussion at the end of the foregoing chapter will have strengthened us to persist. I fully admit that often, when challenged to reply Yes or No, it is necessary to answer 'Yes and No' or 'Neither'. But, I venture to think, that is always because the question is ambiguous, and is asked from the standpoint of a false alternative.^[17] 'Is motion continuous? Yes or no'. I decline to answer until you tell me if, by saying Yes, I am taken to deny that it is *also* discrete. In that case perhaps, instead of saying Yes, I should go so far as to answer No. There may be a middle between continuity and discretion; there can be none between continuous and notcontinuous.

The ground of the objection to the Excluded Middle is, I am bold enough to think, fallacious. Given not fixed discrepant but dialectical opposites, the existence of these together in one single subject does not give us the right to a negative judgment. One can not be made use of as the positive ground

an which to build the denial of the other. One does not wholly remove the other, and, failing to do so, it is not qualified as a logical contrary. For it is only the discrepant which destroys its opposite that can serve as the base of a negative judgment. And, failing the denial of one quality through the other, the answer must be that both are present, and the denial of either is wholly excluded. But I fear it is hard altogether on this point to effect a compromise. If the negative of b is ever simply not- b , and if this is the other which is implicated with b in one subject A , then I grant the Excluded Middle disappears. But, I think, in this case it will carry along with it enough to ruin what is left behind. And I must leave the matter so.

§23. The Excluded Middle, as we saw before, is a peculiar case of the disjunctive judgment; and I think this insight may serve us further to dispel some illusions which have gathered round it.

In the first place we must not think it is a formula, by applying which we can magically conjure elements of knowledge from the unknown deep. It is nonsense to say that it gives us a revelation that any subject must have one of two predicates. For, even if we do not make a logical mistake and really have got contradictory qualities, that is still not the right way to put the matter. Denial is not the predication of a contradictory ; and all that Excluded Middle tells us is that, given any possible element of knowledge, you must be right in either affirming or denying any suggestion that is made about that.

We learnt, in our chapter on the Disjunctive judgment, that this judgment must assume the existence of its subject,[18] though that subject may not be the grammatical subject. And when, in the case of Excluded Middle, we are told it will guarantee us the truth of either b or not- b as a predicate of A , we naturally ask, 'But what guarantees to us the existence of A ?' And we get no answer. Things in themselves either are b or are not b . Undoubtedly so, *but what is the real subject of this statement?* It perhaps after all is not 'Things-in-themselves', but is ultimate reality, which may totally reject the whole offered synthesis. In this case we shall at once be able to say that Things-in-themselves are not anything at all in the real world, though, considered as illusions, they no doubt have qualities. On the other hand, if Things-in-themselves *are* taken as such to have existence, then that is not

proved by our Excluded Middle, but is a sheer assumption on which we base it and which it presupposes.

§24. But when we are told, 'Between the true and the false there is a third possibility, the Unmeaning'[19] (Mill, Logic, II. vii. § 5), we must answer, 'Yes, an unmeaning possibility, and therefore none at all'. The doctrine that propositions need neither be true nor yet be false because they may be senseless, would introduce, I agree, 'a large qualification' into the doctrine of the Excluded Middle. But I am inclined to think that this 'qualification' might be larger than it seems to be, and might be operative perhaps beyond the limits so sparingly assigned to it. But surely, on the one hand, it is clear that a proposition which has no meaning is no proposition; and surely again, on the other hand, it is clear that, if it does mean anything, it is either true or else false. And when a predicate is really known not to be 'one which can in any intelligible sense be attributed to the subject' – is not that itself ground enough for denial?[20] But logicians who actually (Mill, loc. cit.) are ready to take divisible finitely and divisible infinitely as *contradictories*, are justified in expecting extraordinary events. Suppose these terms to be absolutely incompatible, that would hardly bring them under Excluded Middle, unless we are prepared to formulate the axiom thus: Whenever predicates are incompatible, then, although there be *three or more* possibilities, it is certain that one of *these two* possibilities must always be true. But perhaps this 'qualification' might tend to create more difficulties than it solves.

§25. If we turn from these somewhat elementary mistakes, and consider the amount of actual knowledge vouchsafed to us by the Excluded Middle, I hardly think we shall be much puffed up. We must remember that, even if we are able to assert about such a subject as Things-in-themselves, we must always be on our guard against an error. We may be affirming about the meaning of a word, or about a mere idea in our heads, and may confuse these facts with another kind of fact (p. 42). But, even supposing we keep quite clear of this mistake, yet when we come to negative judgments there is ambiguity, unavoidable and ceaseless, about the positive ground of the denial. We may penetrate so far into hidden mysteries as perhaps to be privileged solemnly to avouch that Things-in-themselves are not

three-cornered, nor coloured rose-red, nor pock-marked nor dyspeptic. But what does this tell us? What more should we know, if we spent our breath and wasted our days in endless denials of senseless suggestions? If the ground of negation remains the same,[21] each particular denial asserts nothing in particular (Chap. III, pp. 121, 124).

§26.[22] Confined to its limits the Excluded Middle is rigidly true. But you may easily assert it in a shape which would exhibit a parallel falsehood to those we considered in examining the Principles of Identity and Contradiction. 'Everything', we might say, 'is either simply the same as any other, or else has nothing whatever to do with it'.

Once again, in conclusion, I must call attention to the positive principle which underlies the Excluded Middle. We assume that every element of knowledge can stand in some relation with every other element. And we may give this, if we please, a metaphysical turn, though in doing so we go beyond the equivalent of the Excluded Middle. We may say, If the real is harmonious and individual, it must exist in its members and must inter-relate them.

§27. I may notice by way of appendix to this subject a somewhat subtle argument of Professor Jevons, which I regret to state I am unable to understand. He argues[*] that to say ' $A = B$ or b ' must be incorrect. For the negative of ' B or b ' will be Bb , and by consequence a , the negative of A , must itself be Bb . And the objection to this is that $Bb = o$. But because 'every term has its negative in thought', therefore the negative of A can not be $= o$, and the premise ' $A = B$ or b ' is thus indirectly proved false. Professor Jevons proceeds to draw from this a general conclusion that any judgment, in the form ' $A = B$ or b ', is necessarily erroneous, and that we must write instead of it ' $A = AB$ or Ab '.

Though I fully agree with this last result, yet Professor Jevons' reasoning, as I understand it, appears to me unsound, and I can not reconcile his conclusion with his process, I will take the latter point first. It appears to be right to judge ' $A = AB$ or Ab '. But what is the negative? I suppose the

* Principles, p. 74. For the meaning of Professor Jevons' symbols I must refer to his work.

negative is AbB , and we must conclude that $a = AbB$. But the term AbB most clearly $= 0$. So that, after all, we are left with a conclusion which proves the falsity of our premise.

The result is thus out of harmony with the argument, but for all that the result is perfectly true. It is true that we can not say 'A = B or b', and I will proceed to show why this must be true. We must take it that A has a determinate quality; but what is *merely* B or b is anything whatever. Bb being nothing, what is simply not-Bb will therefore be anything. And, as A is something definite, 'A = anything' will of course be false. The sphere 'B or b' is wholly unlimited.

This confirms the doctrine we have above adopted (p. 123). If you take not-B as the bare and simple negation of B, it is nothing at all. And if you keep to this sense, then 'A = not-B' could not be true. The true meaning of not-B is any indefinite general quality which does exclude B. And, so long as A is something definite, A can not be this. I am inclined to think from the presence of x (*Principles*, pp. 94, 95) that Professor Jevons would agree with this doctrine.

But the conclusion, which Professor Jevons uses as false, is not only quite true, but is the necessary result of the true doctrine he accepts. Taking A as the genuine subject^[23] that lies at the base of the disjunction, then 'a = nothing' must follow at once, since 'A is B or not-B' does assume and postulate that A is real. If a were anything but non-existent, you could not use A as the base of a disjunction. What is wrong is not this conclusion or its premises, but the mistaken idea about the negative which Professor Jevons has embraced.

I confess I am not sure if I apprehend him rightly, but he seems to argue that the non-existent is not thinkable, and hence, because the negative of everything is thinkable, you must never have a negative which is non-existent. Now I admit that, if 'existence' is used in the widest possible sense, this argument is tenable. The unreal, the impossible, and the non-existent will every one of them exist, provided they are thinkable. And, since even nothing itself^[24] in this sense exists, it is obvious the whole argument thus disappears.

But, if it does not disappear, and if existence be taken in anything like the sense of reality, the argument becomes vicious. We have no right to assume that the contradictory of an idea which is true, must itself be real. Take for instance the idea of 'reality' itself. I could not even admit that in thought all ideas are qualified by their negations. I should doubt if the highest term we arrive at can be said to have an opposite even in thought, although by an error we are given to think so. But to hold that what contradicts the real must be real, is a logical mistake which I cannot venture to attribute to Prof. Devons.

I may end with the remark that it would be entertaining and an irony of fate, if the school of 'Experience' fell into the cardinal mistake of Hegel. Prof. Bain's 'Law of Relativity', approved by J. S. Mill, has at least shown a tendency to drift in that direction. 'Our cognition, as it stands, is explained as a mutual negation of the two properties. Each has a positive existence because of the presence of the other as its negative' (*Emotions*, p. 571). I do not suggest that Prof. Bain in this ominous utterance really means what he says, but he means quite enough to be on the edge of a precipice. If the school of 'Experience' had any knowledge of the facts, they would know that the sin of Hegel consists, not at all in the defect, but in the excess of 'Relativity'. Once say with Prof. Bain that 'we know only relations'; once *mean* (what he says) that those relations hold between positives and negatives, and you have accepted the main principle of orthodox Hegelianism.

DOUBLE NEGATION [25]

§28. It is obvious that *duplex negatio affirmat*. To say 'It is false that A is not B' is equivalent to the positive assertion, 'A is B'. But this is not because the added negation barely negates the original judgment. For if that were all, we should be left with nothing. If mere not-A is simply zero, then not-not-A is, if possible, less. And we must not say that negation presupposes a positive judgment, which is left in possession when the negative is negated. For we saw before (Chap. III, § 4) that this positive judgment is not presupposed.

§29. The real reason why denial of denial is affirmation, is merely this. In all denial we must have the assertion of a positive ground; and the positive ground of the second denial can be nothing but the predicate denied by the first. I can not say 'It is false that A is not *b*', unless I already possess the positive knowledge that A is *b*.^[26] And the reason of my incapacity is that no *other* knowledge is a sufficient ground.

§30. I will briefly explain. We know well by this time that, in judging A not to be *b*, I presuppose a quality in A which is exclusive of *b*. Let us call this *y*. I now desire to deny my judgment, and need, as before, some quality as the ground of my new denial. Let us take some quality other than *b*. Let this quality *z* be exclusive of *y*, and let us see what we have. We have now *Az* with the exclusion of *y* which excluded *b*. But that leaves us nowhere. We can not tell now if A is *b*, or is not *b*, because *z* itself, for anything we know, may also exclude *b*, just as much as *y* did. What, in short, we have got is our own private impotence to deny 'A is *b*'; but what we want is an objective ground for declaring such a denial to be false.

The same result holds good with any other quality we can take, excepting *b* itself. The only certainty that *b* is not absent is got by showing that *b* is present. For the possible grounds of the exclusion of *b* being quite indefinite, you cannot get rid of them by trying to exhaust the negations of *b*. You could only do that if the number of possibilities with respect to A had already been limited by a disjunctive judgment. And this is not here the case.

Suppose, for instance, we have the judgment that 'Ultimate reality is not knowable', and we wish to assert that this judgment is false. We expose the ground on which it is based, and go on to show that this ground is not valid. Our proceeding, no doubt, may be perfectly admirable, but all that it gives us is the right to doubt the original judgment, and to deny the truth of the basis it stands on. If we wish to *deny* the original judgment, we can not do that by refuting our antagonists. We must show ourselves that reality is knowable. The ground for the denial of 'A is not *b*', must lie in 'A is *b*'.^[27]

§31. I will endeavour to remove a possible source of misapprehension. It might be urged that in practice the denial of a judgment can always be

denied by something other than the judgment itself. Thus, for instance, 'It did rain yesterday', may be false, because it snowed or because it was fine. But each of these can be denied on the ground of the other. The result of our double negation of 'it rained', might be either 'it snowed', or again 'it was fine': and we might return to 'it rained', by virtue not of a double but of a triple denial.

But this objection would rest on a misunderstanding. It is perfectly true that, in denying 'it rained', I must imply and make use of some discrepant quality. It is, once more, true that what I have in my mind, and should assign as my reason, may be either 'it snowed' or again 'it was fine'. But it is a mistake to conclude that the denial really rests upon either the one of these or the other. Whatever you might have had in your mind, no logic could force you to allow that your denial had committed you to either 'it snowed' or 'it was fine'. What we *use* in denial is not the *whole* discrepant it is that part of the discrepant which answers our purpose. The denial asserts no more than the existence of so much quality as is enough to exclude the judgment 'it rained'. This universal 'so much' is possessed by either 'it snowed' or 'it was fine', and *this* you can not banish by anything short of the judgment 'it rained'. In other words, if you say 'it did not rain', you are at once committed to a positive 'because', but you are committed to nothing but an unspecified quality. The evidence for this quality no doubt in the end must be found in the presence of a contrary assertion, but the mere contradiction does not affirm this or any particular contrary. It affirms merely *some* contrary, and you get rid of this only by the judgment 'it did rain'. We find here once more the constant ambiguity, which we have seen (Chap. III. §19) makes the use of negation so precarious. It is so difficult to work with double denial that I hardly can expect in the present volume to have supplied no example of the error I condemn.[*]

* Mr. Venn, I think, has certainly done so.[28] When I had the pleasure of reading his *Symbolic Logic*, I congratulated myself on the fact that I had already written the present and all the preceding chapters. I have not found occasion in consequence to alter anything of what I had written, but I should like to use one of his principal doctrines to exemplify the fallacious use of the negative. I have added this discussion as a mere appendix, for it hardly carries the subject further. It is due to myself to defend my own views against a counter theory from a writer of established and merited reputation.

After calling attention to the ambiguity of affirmative universals, the doubt, that is, if they affirm the existence of their grammatical subject, Mr. Venn, if I understand him rightly, asserts that at all events the negative is *not* ambiguous (p. 141). I will not here enquire if in other places he is compelled to recognize that the opposite of this assumption is true. At all events the foundation he here seems to build on is the assertion that negatives have only one meaning. 'It comes to this therefore that in respect of what such a proposition affirms it can only be regarded as conditional, but that in respect of what it denies it may be regarded as absolute' (142). The affirmation of xy is always ambiguous, since x may not be *actual*; but the denial of x not- y is perfectly clear. And upon this basis he seems to build his doctrine.

Now the reader of this volume will know that a negation is always ambiguous. We may consider this as settled, and I will not re-discuss the general question. I will first call attention to the seeming absurdity of Mr. Venn's doctrine. He teaches in effect that, although you do not know what a statement means, you can always tell what you mean by denying it. And he ought to hold that the ambiguity of a judgment at once disappears, if you deny it and then deny your denial. This course has not generally been found so successful.

But it is better to show the actual mistake. And we will preface our criticism by setting down some elementary truths. You can not argue from the assertion of possibility to the assertion of actuality, but you can always argue from the denial of possibility to the denial of actuality. To deny possible x (you must of course not take 'possible' as '*merely* possible') is by implication to deny actual x . Now the simple application of this commonplace doctrine is that, if you are given a connection xy and do not know whether it is possible or actual, at all events, if you deny its possibility, you may be very sure that you also, and as well, have denied its actuality. This is literally (unless I misunderstand him) the whole principle which Mr. Venn unconsciously proceeds upon, and the idea that it could lead to any great result, or to a better understanding of hypotheticals, seems somewhat strange.

I can not be quite sure of his exact procedure, but I think it is this.

The affirmative judgment both affirms and denies. Mr. Venn will not say that what it affirms is mere possibility, but he quietly assumes that what it denies is impossibility. (If he does not do this, he makes a simpler mistake to which I will return.) That is to say, he tacitly and without any justification assumes that x not- y asserts the *impossibility* of xy ; and it is solely by denying this arbitrary fixture that the positive xy becomes unambiguous. But if he wishes to restrict the affirmative judgment to the minimum sufficient to deny the denial of possibility, surely it would be better to say at once, 'The affirmative judgment does not assert more than bare possibility'. He would so have done openly and in an intelligible manner the very thing he has in effect done, indirectly and most objectionably, by going round through two denials. The procedure could in no case have become *more* arbitrary.

I will put the same thing otherwise. With affirmative judgments possibility is the minimum: with negative judgments impossibility is the maximum. Now it is *uncertain*

(we may so interpret Mr. Venn) if the affirmative xy asserts the maximum (actuality) or the minimum (possibility), but it is certain that it unambiguously denies the negative. But, if the negative becomes unambiguous because it is arbitrarily fixed at its maximum degree (impossibility), then surely it is clear that we thereby, and *ipso facto*, are fixing the affirmative at its minimum degree. For so far at least as the affirmative denies and is not ambiguous, it is so because its minimum is enough. And the fallacy is simple. This minimum is not enough unless the negative is fixed at the maximum. Suppose not- xy to mean ' xy does not exist', then ' xy is possible' ceases to deny this : for, although xy may not exist, it still can be possible. Again if xy meant ' xy is actual', then ' xy is impossible' (or, again, 'if x then no y ') is not its contradictory, and goes a long way beyond its denial. In short, since not- xy means either *de facto* non-existence or else impossibility, it seems absurd to assert that the denial of this is not ambiguous. And if you mean to fix the meaning of the negative arbitrarily, it seems absurd to shrink from doing the same by the positive.

In conclusion, if we suppose that not- xy is really meant to assert non-existence, that is to deny the actuality of xy , then the error is palpable. You first say you do not know whether xy asserts existence or possibility, and yet you say it denies the non-existence of xy . But possibility, not affirming existence, of course can not deny non-existence, and the whole process disappears unless you rapidly shuffle from one term to the other.

This hidden equivocation soon begins to bear fruit in the curious reasoning which immediately follows (p. 143). If I do not misapprehend Mr. Venn, he tries to make a passage from bare possibilities to a positive existential judgment. I confess his metaphysics take away my breath; and I am bound the more to admire his audacity as he somewhat poses as abjuring 'transcendentalism', and likes to take things 'in a perfectly matter of fact way'. But let us see what this way is. We suppose four possibilities, (i) x with y , (ii) x not- y , (iii) y not- x , and (iv) not- x not- y . We have first a conditional assertion of xy , and this destroys (ii). We have next a similar assertion of yx , and this destroys (iii). We have therefore, after this second assertion, but two possibilities, (i) and (iv).

'Before, the positive possibilities were three in number, now they are reduced to two; for it is implied that everything must be either both x and y or neither of the two. Carrying this process one step further, we see that three such' [i.e. conditional] 'propositions would be requisite to establish unequivocally the existence of any one of the four classes. If we expunge \overline{xy} ' [i.e. not- x not- y] 'also, we are then reduced at last to an assertion of existence, for we have now declared that xy is *all*, viz. that within the sphere of our discussion everything is both x and y ' (p. 143).

Now, so far as I can see, we may understand this process in two different ways, but an either understanding the argument is vicious. The first way is to take our possibilities as holding within an exhaustive disjunction. As Mr. Venn says, we know 'that everything must be either xy , or x not- y , or y not- x , or not- x not- y ' (142). The disjunction will rest here on a positive existential proposition, and the inference will

be quite correct. But the objection is that, an Mr. Venn's theory, we can hardly assume that we have such a disjunction. At least I do not understand why the assertion, Everything is one of four possibilities, should be able to be taken in its positive meaning. We surely are bound, if we wish to be unambiguous, to take it as denying. And if you take it as denying, *it does not prove the conclusion*. It asserts that what is not one of four possibilities is nonexistent (or impossible), but it does not say that anything exists. The *possibility* of everything is all that is asserted, and from this the argument will not take you to more than the sole possibility of xy . If you start with nothing but possibilities, you can not cross from a bare possibility to actual existence simply on the ground that the other possibilities have sunk into nothingness. At least I am sure 'transcendentalists' especially would be interested in learning Mr. Venn's 'matter of fact way' of accomplishing this exploit.

We thus see that the reasoning can not be based on an affirmative existential disjunction. And without this foundation it is thoroughly unsound. Not- x not- y is to be suppressed by a conditional judgment, and in its dying struggles is to establish xy as 'an assertion of existence'. I will not ask what the conditional proposition could be. 'If anything exists then xy exists' might answer the purpose; but it would not do so unless it were really unconditional, and covertly contained the very assertion that ' xy is actual'. And this I think is the alternative to which we are brought : we either completely abandon and throw over our doctrine of the superiority of the negative, and avowedly start with an affirmation of existence ; or else we prove the existence of xy through a double denial which assumes the conclusion in order to extract it.

We may verify the presence of the same ambiguity in the extraordinary assertion that contrary judgments, such as 'All x is y ' and 'No x is y ', can be compatible (145). It is not worth while to enter into a discussion of this matter. They are of course compatible if you allow yourself to play on their ambiguity; but how in that case they can be said to be contrary I have no conception. 'The interesting and unexpected application' is to me, I confess, not anything beyond a confused example of a well known doctrine concerning the relations of possibility and existence. But I confess besides that, I have never been much used 'to discuss the question in a perfectly matter of fact way'.

I need not mention what seem to me other mistakes of much the same kind. And, beside these, there are some statements in connection with the hypothetical judgment with which I do not agree, but for which, I think, my treatment of the subject has provided sufficiently. I am sorry to be forced, both here and again (Chap. VII.), to emphasize my difference with Mr. Venn. And by way of compensation I should like, if he will allow me, to offer a suggestion. If Mr. Venn had not such a horror of 'metaphysics' and 'transcendentalism', if he was a little less resolved to be 'matter of fact', and 'discuss the question entirely on a scientific or logical ground', I fancy he would have come somewhat nearer a solution of the problems it is his merit to have undertaken. At any rate I suspect his idea of science might have been expanded, and some prejudices as to 'matter of fact' have been somewhat loosened. He would certainly have imbibed a dislike for artifices, and such a scruple against entertaining

commodious fictions, as in itself would have saved him from a succession of serious logical mistakes.

ADDITIONAL NOTES

1. On the idea of a term being related to itself see *Essays, Index, s.v. Terms.*
2. 'Within a whole of fact' 'Fact' is of course to be understood here in the widest sense.
3. All truth must abstract, and, so far as it is truth, it can not be made false from the outside. How far any truth which abstracts can be wholly true, I have discussed elsewhere. See *Appearance* and *Essays, the Indexes.*
4. 'In the judgment S - P'. Add 'of which we were speaking'. And, after 'becomes an identity', add 'and so enters as an element into a fresh S-P'. In the next sentence the 'it' (in 'belongs to it') is to be emphasized.
5. What the reader should keep in mind is the following. Differences are all incompatible if you attempt *simply* to identify them. They are again all compatible if and so far as they are *merely conjoined*. Wherever there is conjunction there is something more in the conjoined whole than mere identity, so that here the whole, *as simply identical*, does not attempt to enter into each diversity. The whole, however, if it is to be made intelligible, must become disjunctive. The aim of disjunction (see Chap. IV, § 1) is to replace the conjunctive unity by the discovery and statement of conditions. As to why certain conjunctions are possible in fact, while others are not so logic does not enquire. The question of detail belongs here mainly, I think, to psychology. On the above see *Appearance, Appendix, Note A,* and Bosanquet's *Logic, II, Chap. VII.*
6. 'The discrepant with A ... attribute'. This sentence should run, 'The incompatible with A is what is not a mere joint predicate with A in any subject, nor is joined to it ... attribute'.
7. 'For denial ... affirmation'. In this sentence 'the' should be 'a'.
8. 'From a certain theory'. 'From' is here, I think, rightly used in contradistinction to 'by'.
9. The main point here is as follows, Incompatibles exist, and no one denies this fact. And, so far as they exist, the Law of Contradiction holds. The real question is as

to the limits within which, and the conditions under which, incompatibles are found and can be justified. How far in other words is the truth of contradiction, as such, only relative and more or less of an appearance? What, as I understand it, the Dialectical Method is concerned to deny is merely the absolute, utter and final, truth of fixed incompatibles. On the whole matter see my *Appearance, Index*, s. v. *Contradiction*.

- 10 'What I mean, &c'. The point here is that, where you have differences in A, A is never mere and bare A. Cf. an § 10.
- 11 'Stationary contraries' ... 'are found'. Yes, but as an appearance only. See Note 9.
- 12 On the principle of Excluded Middle, while once more referring the reader to Bosanquet's Logic, I will add a few words. This principle presupposes a disjoined world of incompatibles, and its truth is but relative and limited to Reality taken in the character of such a world. So far as the real is otherwise, as being either below or, again, above the level of disjunction, the principle does not hold. If we accept the view that no truth is quite true and no error merely false—a view advocated in my *Essays and Appearance*—we must admit that Excluded Middle, however necessary and important, is not true absolutely.

In rejecting it as the principle of disjunction, I meant to deny that disjunction stands upon it in the shape of a ready-made base. We may on the other hand take it as containing the abstract form of disjunction. It is disjunction made all-embracing and dual by grouping all the incompatibles, save only one, under their negative aspect, with the result that nothing is left beyond assertion or denial. The leaving the other members of the whole thus artificially blank, is of course a grave shortcoming. For, merely in the shape of such an abstraction, these other members are not real positively, and so are not real at all. Knowledge is not advanced by the exhaustiveness of disjunction effected formally through an artificial duality. Its real object is to discover in concrete detail the full connection of its elements.

Excluded Middle is, however, in a sense more fundamental, and goes, we may say, further than *mere* disjunction. For it asserts the actual being of the disjunctive world. We affirm in it that Reality is a region where 'either or' holds, and that everything is so determined as to fall within this sphere – everything, that is, so far as it is not self-contradictory or otherwise senseless. (For the connection between these two ideas see T. E. VIII.) But, as was remarked above, we have here a relative truth which is taken wrongly if made absolute.

I may add that the principle that every idea is attributed to Reality, and is therefore in some sense real, has no special connection with Excluded Middle. And the

same thing holds again of the corollary that, where all possibles but one are excluded, the one left is actually real.

- 13 'True or false'. See, however, the preceding Note.
- 14 'On this basis'. But see an Chap. IV, §6.
- 15 'My impotence'. See an Chap. III, §9.
- 16 'Must wait' ... fact'. But it is better, I think, to take Excluded Middle as assuming, not only connection everywhere throughout the Universe, but also that special kind of connection which holds between incompatibles. See Note 12.
- 17 'False alternative'. But, if we say this, surely we must mean that Excluded Middle has been assumed to hold outside its own limited sphere, and that hence it does not hold everywhere. Again, in the next paragraph, 'fallacious' can not, I think, stand. But I agree that it is certainly possible, and sometimes easy, to object wrongly to the legitimate and necessary use of Excluded Middle.
- 18 'The existence of its subject' But see an Chap. IV, § 3.
- 19 Mill's misuse of 'contradictories' can be excused, I presume, as a mere slip; but his doctrine of a 'third possibility' seems really something worse. He takes the possibility – with regard to an offered judgment – that it is senseless, and therefore no actual judgment; and he then places this itself as a possibility under the judgment as actual, and as itself falling between the two other possibilities of truth and falsehood. Cf. Bosanquet, *Logic*, I, 352 (Ed. II).
- Conceivably all that Mill meant was to warn us that an unmeaning idea or judgment is none, and so must not be used. But, if so, his meaning, I submit, was expressed by a serious blunder. The writer whom he criticizes, we may also do well to remind ourselves, made use of the word 'judgment' rather than 'proposition'.
- 20 'Ground enough for denial'. It would be better, for 'denial', to substitute 'rejection with a denial of possibility'.
- 21 'Ground of negation remains the same'. We should add 'or at least is not known'. See an Chap. III, § r3.
- 22 For this section, as also for § 20, see Note 12.
- 23 Taking A as the genuine subject. 'Genuine' is to be emphasized. See an Chap. IV, § 3. And, again, for 'reality' and 'existence', see an Chap. II, § 2.
- 24 'Even nothing itself'. For 'nothing' see *Essays*, the *Index*, and T. E. VII.

- 25 'Double Negation'. There is a serious mistake in these pages. The whole subject has, I think, been made clear in Bosanquet's *Logic*, I, pp. 302-7. Cf. his K & R, pp. 230 foll.

The main point here is this. Double negation holds where the alternatives are limited to two, and it does not hold otherwise. And in denial we have always this dual alternative.

The error in my treatment is as follows. I did not see that (as Dr. Bosanquet has shown) all denial sets up an exhaustive dual disjunction (Cf. T. E. VI). Judgment divides the world, we may say, into the selected and the residual Reality, and in denial what is excluded must qualify the latter. Having so an 'either-or' – when we have denied our denial the affirmative only is left.

So much for my mistake; but, apart from this, my discussion did well, I think, to insist on an important truth. Since all denial rests on a positive ground, though this is not stated in and by the denial, we may hence be led into error. We may make the ground of negation, as we happen to have that in our minds, an essential part of the denial. We covertly, that is, in 'A (x) is not b' explicate the x, and treat this, in the form e.g. of c, as being the sole ground of our denial. We thus turn 'A (x) is not b' into 'A (c) is not b', and so without right come back from the denied absence of b to the presence of c. For instance, having decided to wait because the ground will not be dry, and, having then the denial that there has been rain, I may rush to the conclusion that the ground will be dry – forgetting snow or dew. I have turned 'not after rain', into 'dry', by taking wrongly the simple denial as qualified.

- 26 'Positive knowledge'. We must add 'direct or indirect'. 'It is false that the ground will not be dry' rests on the exclusion, however arrived at, of every state incompatible with dryness.
- 27 'A is b'. 'Or' (we should add) 'in the knowledge that what excludes b does not belong to A, but is (where it is anything) something merely accidental.
- 28 I now regret the asperity of this criticism. Dr. Venn probably had no idea of his challenge and of the provocation which he gave. And how far he ought to have been aware of this, I have now certainly no wish to discuss.

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