II.—SPACE AND TIME.

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IN an article in the last No. of *MIND* (pp. 231-43) I argued that the objects of many fundamental kinds of knowledge transcend the Unity of Consciousness. I shall now consider, what I then excepted for independent treatment (p. 234), the reality which, in our knowledge of them, belongs to Space and Time. As the problem concerns the nature of this reality, it is not psychological but metaphysical. Of both I shall first assume, and endeavour to follow out to its consequences, the subjective doctrine, that they are images or forms constituted by the individual subject, and real only for it. First as regards Space.

From our representation of Space it seems, as Kant says, that we can think away all objects—all actual motion, solids, figures, lines and points. We appear to reach a homogenous unity, inseparable, indestructible. But this pure form of Space can have no parts; for I can only represent a part, and distinguish it from surrounding space, by drawing a figure, or suggesting it by a series of muscular sensations, or most vaguely of all by a concentration of attention. Nor has the pure form of Space any dimensions. We cannot realise the depth of Space without line. We plunge into it mentally; but this movement becomes a line, as we combine its points in unity. The breadth and height of it seem to stand facing us without requiring any linear construction. But the vaguest distinction of breadth from height requires two lines to be suggested in some way which intersect. We must then conclude that, if we succeed in banishing all line and figure from Space, we produce an image which has neither parts nor extension. Whether this is what the perception of Space once was, and its differentiation into a sum of extended parts an aftergrowth, or whether there was a vague extensiveness present to it in the beginning; whether again we can succeed in reaching this pure form of Space, or whether there is not some subtle movement of attention, or difference of form, ever playing upon its surface,—are psychological questions, which we are not here concerned about. My present contention is, that the possibility of Space possessing parts and dimensions

depends on line and figure, which we yet habitually regard as its accidents. This is the first contradiction which the subjective doctrine brings us to. It is impossible to consider that there are only those parts of Space which we represent by figure, and that they are only real when represented. Yet we must admit that, directly the figure ceases, either by being merged in another figure or by withdrawal of attention, the part ceases for consciousness ; and, directly the figure moves, the part moves also or disappears. True, when we deny the continued reality of the part, imagination at once returns to recreate the figure, to refute us ; but this at best gives only an intermittent reality.

I shall now attempt to give a general view of the different contradictions which result from this doctrine. The Space of perception or representation is always limited. Now every limit does not imply a consciousness which transcends it, or we should indeed attain to an intuition of infinite Space. If we look at the limit which a figure marks out in Space, we see that it involves a consciousness beyond it. But the limit which is imposed upon our finite perception or representation as a whole is different from that of its parts. It is a limit which binds all consciousness to the finite. Up to it I am conscious, beyond it unconscious ; near it my consciousness fades, at it ceases altogether. It is in this way that our consciousness of Space is limited. Now we notice that when we turn attention to this limit it ceases to be the limit, and becomes the centre of consciousness, and to and beyond it are constructively added fresh parts where there were none before. Still, however far the subject carries its activity in transcending former limits, the space which it combines in unity with itself is always limited, and its potentiality of transcending any given limit never becomes a potential infinitude. Even the power of inflation which it has is deceptive. For as it adds the parts G, H, K to D, E, F, so the parts A, B, C drop away from it. This sentence involves the third contradiction. The parts of Space do not eternally coexist, but temporally, and at times exchange their coexistence for succession. Thus the parts A, B, C coexist, but if I pass to the limit C to create the fresh parts D, E, F, these appear successively ; likewise the contiguous parts G, H, K and, as I attend to them, A, B, C pass out of existence successively in that order ; if I return to the limit D, they are recreated, but in the opposite order, C, B, A. The parts of Space, then, are not unchangeable, but subject like their content to the categories of Becoming

and Ceasing. The becoming of a part of Space is, so far as consciousness is concerned, its gradual creation out of nothing, into which, after a longer or shorter interval, it fades and ceases, the only condition being the movement of attention towards or away from its limits. This involves the last contradiction. Degree of intensity, the characteristic of all consciousness, must belong to the parts of Space, which are now fading, now increasing in vividness.

To sum up results. Space is limited, but the subject can transcend any given limit, on condition that it contracts other limits. It is composed of parts and dimensions when the subject distinguishes line and figure within it, but those only which it distinguishes. Its parts have no permanent reality, nor when real do they always coexist, but indifferently precede or follow one another. They are subject to the category of Change, and, like all subjective objects, to degree of intensity. These results are in irreconcilable opposition to the following self-evident and necessary judgments—that Space is infinite; that its parts and dimensions are independent of the figures and lines by which we apprehend them; that these dimensions are eternally fixed, and these parts eternally coexistent and inseparable; that neither in part nor whole is it accessible to change, and that the varying intensity of its image is wholly subjective; that it is the subject which comes to be conscious of it, not it which comes to be; that it is the subject which successively apprehends its parts, too manifold to be combined in one consciousness by its feeble activity, not they which successively exist. All along the line of these propositions Judgment transcends Consciousness, and recognises no limitation to the image of Space within it. It is not the perceived or represented space that it affirms to be infinite and unchangeable; it is not the subjectively conditioned image of the parts of Space that it affirms to be necessarily coexistent, but it is the Space which extends beyond the limits of consciousness, and the unchangeable reality of which can be in no way affected by the appearances which it assumes in it.

I do not then, as yet, find myself with Lotze compelled to surrender the ordinary view of Space, on account of the difficulties which it involves; on the contrary, it is the impossibilities of the opposite doctrine which force me to accept its substantial accuracy. This is the negative evidence for the ordinary view. The positive evidence for it is found in those necessary and self-evident judgments which affirm it.

I shall now endeavour to follow out what I may call the Objective view of Space, to substantiate it without any reference to a subject finite or infinite, to lay bare its difficulties and apparent contradictions, and to estimate whether these are real and insuperable, or are not rather due to a confusion of thinking. I shall first consider its difficulties to the Idealist, and then those which are suggested by the doctrine itself.

As the first principle of the German schools of Idealism is the synthetic activity of the subject, so it is an insuperable difficulty to them to be asked to think anything real or knowable apart from its activity. They feel themselves cast upon a disordered and disconnected manifold. As Lotze asks,¹ How can the parts of Space undertake the functions of a subject, come into relation, fix their own position, and, above all, being each one internally the same as every other, yet set up necessary distinctions among themselves? In every question there are assertions, and in every assertion presuppositions, which may not all have been foreseen and criticised, which it is better to try to lay bare than to rush heedlessly upon an answer. Most of the questions which we ask ourselves in Metaphysics are suggested by the obscurity and confusion in which our thought at first lies, and out of which it gradually struggles to the light; which if we had in the beginning, we should never ask them. This is the case with the question under consideration. The presupposition is, that in every manifold the unity is something superinduced upon it, and not belonging to or due to it; for "a plurality of things cannot of themselves unite in one relation, nor can a single thing of itself bring itself into a multitude of relations".² The Unity of Space is superinduced upon the parts and even the constitution of the parts as such, that is, as different one from another, is not due to themselves; for, difference being no quality of any of them singly, how can it subsist when there is no relating activity to combine them?³

When Hume, in carrying out the Principles of Association, dissolved knowledge, as it has been forcibly and picturesquely expressed, into a chaos of fleeting and unrelated sensations, the great work of Kant was to reconstitute it by drawing attention to a principle, which had been overlooked, that must precede all association—the synthetic activity of the

¹ *Metaphysic*, §§ 110, 111.

² T. H. Green, *Prolegomena to Ethics*, ch. i.

³ Lotze, *Metaphysic*, § 80.

subject. But what has not been noticed is that, while on the one hand the principle is only necessary in consciousness, on the other hand much, which is undoubtedly real for us, cannot be combined in its unity.

The error lies in confusing or identifying the bond of union in consciousness with the bond of union beyond it; either in supposing that the latter is an activity analogous to ours, or in confusing the two worlds together and bringing all that can be known by us under the activity of the individual subject. Hence, when this bond of union, essential in either case, is rejected, its advocates hand over to us a disconnected manifold, and tell us to combine it. Were I forced to accept it, I could indeed conceive of nothing but a spiritual and active principle capable of the task. But if I answer that on their own conclusive showing such absolute disconnectedness is unthinkable, they rejoin that it is so for the very reason that the work of thought cannot be got rid of. This, however, is just the point in question, whether there is no other connecting principle but Thought. Such a principle I find in Infinite Space. I do not think it first disordered and unrelated, and perplex myself by trying to understand how its dead isolated members come into relation. I do not have to evoke any *active* principle; there is nothing for it to perform. For through all Time the manifold parts of Space are combined in the infinite unity thereof, in relation to one another, and all are eternally fixed and different.

I have shown what I think is the source of the main difficulty to the Idealist. Any fuller account of the Unity of Space I defer until I have considered Time. We have now to notice the difficulty connected with the parts of Space. How can I affirm them to be different without contradiction, seeing that each one is internally the same as every other? I am putting the question in a new form. I do not ask how this difference is produced? We have found this conception of activity untenable. The parts *are* in relation to the whole; the question now is, whether being internally the same they can yet be different. But this inherent sameness is again an assumption. Space may be composed of parts of which each one is different in shape and magnitude from all the rest. It may also be the sum of any other parts. Further, these different modes of dividing Space may be all real together. Space may be the sum of infinitely small spaces, and these may be again included in larger spaces of different form and magnitude. Now it is, no doubt, easier to appreciate the difference of the parts of Space when they are

internally different. As regards our perception, we could never identify any part of Space, or know what part we were in contact with, were they all alike. But even in this case we should have to affirm that these parts, similar to all appearance, were in reality different. This essential difference is nothing subjective. It is not due to the quantity and quality of the muscular sensation, which we feel in passing among the parts. It is not due to the movement of attention and its estimate of the relative lapse of moments. This difference is subjective, and presupposes the other. If the part D were not really beyond C, and C beyond B, we should not feel a greater number of sensations in passing from B to D than in passing from B to C; and if from B to N and B to S were not real differences of direction, we should not feel qualitatively different sensations in passing to them. Under the exigencies of a special theory this subjective difference may be explained as due to a modification of state of unspatial realities, and on the subjective view it is the best explanation; but it is forced and artificial compared to the other.

But I have not yet reconciled the supposable inherent sameness of the parts of Space with their difference; and there is another difficulty connected with the latter which I have to notice. Let ABCD to N represent a division of the real Space into similar parts. Now A, whatever it may have in common with BCD to N, is an individual part different from all other parts. As I pass to BCD, I find each of them also is an individual part different from all the rest. The category of Individuality or Distinction does not distinguish but confuses them, and no other category can succeed where it fails. Now, if we consider this apparent contradiction, it becomes obvious that it is owing to an often noticed feature in language, that it expresses what is general but not what is singular. When I predicate individuality of ABCD to N, I am applying no mere conception, though language belies me. In each case the individuality is itself different. For I affirm A to be different not from a mere conception—others, but from BCD to N; B, again, I affirm to be different—not from BCD to N, which would distinguish B from itself, and identify it with A—but from ACD to N; and likewise of CD to N. Thus the 'others,' which each part is different from, is no conception, but the opposite of conception; in each case it includes what it excluded before, and excludes what it included.

Now in the symbolism I have used it may seem an improper advantage to represent similar parts by different

letters, by which I introduce, at least into the symbols, that internal difference which I am by way of excluding from the realities. AAA to N would be a more correct representation, and then all use of the symbols would vanish. But in truth we can only doubt the essential difference of the parts of Space when we abstract them from the whole of which they are the parts. Each may be the same in itself—that is, in form and magnitude—but each is a part of a whole, and each occupies a quite unique relation to the whole and to all other parts. In this lies its difference, and this difference of position is in no way inconsistent with its internal sameness. Again, each part *is* a place—not *has* a place; we are not localising it in another space: the movable object in it *has* the place, *it* is the place—and this place is not the same as, but essentially different from, any other place in the whole of which they are members.

I will turn now to the Space in consciousness. The parts which I represent there by figures, Judgment too asserts to be independent of them, to have a permanent and unbroken actuality, though the figures and my combining them in consciousness are occasional. True, when I distinguish the parts, it is on condition that I hold them together in one consciousness and, passing from one to the other, compare them. But their difference antecedes the consciousness of their difference, and is wholly independent of it. In fact, it is just because of the necessity or permanence through all time of these relations that I cannot refer them to myself, which now combines one manifold, now another, and gives to none more than an occasional actuality. Hence, while Kant considered that the individual subject produced objective relations—that is, necessary and universal relations—I can only find it producing subjective relations, which are fleeting and intermittent; but this point I will not follow out.

Thus, even the parts of the finite space in consciousness, we have not been able to limit to a reality for the subject. We come now naturally to the question, What relation does this space bear to the real Space without? We have to consider the doctrine, that on the realistic view Space must still be considered quite distinct from that imperfect copy of it in consciousness. In fact, the latter is just this, a copy or reproduction of the former. The artificiality of the subjective view is therefore supposed to attach equally to the objective, since in either case the space in consciousness is a production of the individual subject. Were I forced to accept this position I should still have in the self-

evident judgment the assertion of an infinite Space not dependent on consciousness. But the Dualism would be a startling one to contemplate. There would be an absolute gulf between consciousness and this infinite Space. No fragment of the latter could by any possibility be united in the former. They would be two worlds utterly out of touch, and the pretension of Judgment to make anything known of a world absolutely unknown to consciousness would seem strange and dubious. But here, as nearly everywhere else, our difficulty is the result of a confusion. Between the space in consciousness and the real Space without we place a great gulf, and quite forget to note that this gulf is spatial. In imagination we take a small surface of Space and place it on the retina, or further inwards *vis-à-vis* with the individual subject, and think that we have taken it out of Space altogether. What is only a spatial separation we confuse with an unspatial separation. The subject, coming to be conscious of a part of Space, fancies this finite portion to be out of real Space; but it is connected by no act of its own, and can be broken by no act of its own. It cannot on an impulse from spatial or unspatial realities build up a finite space within itself, which, while it must be in the one infinite Space, is nowhere in it. Is there then nothing which can separate the space within us from the Space without? Driven to desperation, we may interpret the gulf of division as a consciousness. But this can alter nothing. The two spaces must still be continued till they meet, and an unextended something cannot stay their union. To conclude, we have seen in the first place that it is impossible to refer the finite space in consciousness to the individual subject's activity; in the second place, we find that this is because it is part of the infinite Space beyond, from which it cannot be separated.

I now turn, finally, to what seems to me the chief difficulty of the objective view of Space. I have carefully avoided implying that there are actually in it moving and changing objects; for this problem I am not concerned with. On the other hand, I do not assert that Space has any actual reality apart from its content. I leave the question untouched. Now, the difficulty arises from ascribing parts to Space—not from asserting that they are different, for *if* there are parts they must be different. The difficulty is twofold. In the first place, what are these parts? They may be of any and every form and size. We seem to have to exercise a discretion what to determine on. In the second place, how can the infinite unity of Space be multiplied into

finite spaces where there is no figure of any kind to produce this limitation? But, indeed, were figure real, it would not help us. For such a changeable thing, though it could limit a space, could not fix that limit perpetually. Finite Space is then not dependent on figure, nor produced by it. But here we are apt to be deceived by a false conclusion. We think that, if there is this dependence, when the figure ceases the part will also, and a hole or gap be made in Space. Now, though the part would cease, so far as to become merged in surrounding Space on account of the destruction of its limits, no such gap would result. This supposes the figure to continue, under the form of which alone the gap is conceivable. Though then there would be no mutilation to Space by the annihilation of all figure, which in no way creates the Space it limits, yet all these limited spaces would be merged in the one infinite Space, with the result that it could have no parts ascribed to it, unless there are other means for its multiplication. Leaving this matter unsettled for the moment, I pass to another attribute of the real Space. We think of it as possessing an infinite number of directions, extending to infinite distances, passing from everywhere to everywhere, containing in themselves its three dimensions. These directions we can only represent in consciousness by lines, as the parts by figures. But here a marked and unsuspected difference occurs between the two cases. For we cannot think the multiplicity of these directions as being merged and disappearing in the Unity of Space, when the lines which represent them disappear, or when no object traverses them. The directions cannot lose their individuality and difference. They are fixed and settled without resting on any doubtful discretion of ours. There is nothing arbitrary in them, as in the shape and magnitude of the parts of Space. It is easy to realise that but for this difference of the two cases we should have been brought to a real contradiction. For the dimensions of Space are fundamental to it; without them it would no longer be Space or Extension. But the distinction was not a sophistical one, produced by a desperate effort to avoid it, but was quite unforeseen. To return to the parts of Space. If we think it essential to Space to have fixed and unchangeable parts, this thought of its possessing an infinite number of directions will remove our difficulty. For these infinite directions crossing everywhere themselves set limits in Space, and multiply it into an infinite number of parts, unchangeable because they are.

I now pass to consider Time, which I shall first suppose subjective.

As with Space, so with Time, if we regard it as only real for consciousness its limitation is obvious. We cannot complete the successive synthesis, as Kant says; for, as Lotze adds, it is impossible to sum up an infinite in a finite time. However the subject endeavours to combine into unity with itself the unity of Time, what it attains to is but a fragment. Yet can it not think this fragment as the whole, but must judge it connected with a before and after, if it would avoid contradiction. The question is how we are to interpret this transcendent portion on the subjective theory?

The events which are passing within me are only possible in Time; that is, they each occupy a duration or part of Time. But they pass and other events succeed them, enduring in their stead. What is this Past? The judgment asserts that before the duration of which I am, there was another which I am not, conscious. Now if this judgment asserts the reality of a past, which transcends the Unity of Consciousness, I must pronounce it false. But I may endeavour to bring it within consciousness. I may say that in asserting it I unite it with myself, and transcend a distinction which I the subject alone have set up. Let us suppose that it can embrace a fragment of the Past; more than that we have seen to be impossible. This past is then only real when I assert it or recall it; its reality is intermittent. Further, I can only recall or combine it in the present, in the duration which now is. This past, then, is only real so far as it is present. But the Past is not the Present, nor can it be confused with it, nor interfered with in its necessary antecedence to it without contradiction. But there is yet another contradiction. When I pass from the present duration to connect it with a past, and follow out this past from its connexion with the present, this past, so far as consciousness is concerned, instead of being antecedent to the present, is consequent upon it. For as the present duration ceases, that which becomes present in its stead is always after it, and never before it. To this rule the activity of the subject must conform, and, as it passes beyond the present duration, the duration it connects with it must always come *after* it, and can never be made to go *before* it—must always be the future coming into actuality, and never the past returning to actuality. At most it can only clothe the coming moments like the moments that are past, and for ever past.

We are then beset by contradictions on either hand,

whether we regard the Past as real or unreal. For we cannot gather up the past, the object of our judgment, into the unity of consciousness without contradiction, nor, on the other hand, can we assert that the Present is the absolute beginning of Time, and that before it there was no time—no before. Now this 'before,' this Past, we cannot affirm to be actually real or Present, but just as little can we deny that it is real as Past. Yet our objection to ascribing reality to it often proceeds from confusing its reality with the reality of the present. The latter is before us with its clearness and fulness of content, and seems to monopolise reality. We ask where the Past is? We seek it in the world without. We try to represent it as lying alongside of the Present far far away. But we find no vestige of it. For the world is dominated alone by Actuality and Becoming. We say, then, it is some artificial projection of our own minds.¹ But we find as little trace of it there. Truly such an attempt we seek rather than are able to carry out—an attempt which is dissolved in and neutralised by contradiction.

When we pass to consider the Future, we find that we are as much involved in contradiction on the subjective doctrine as in interpreting the Past. We cannot grasp it in consciousness. For though what is and is coming to be may be combined in its unity, what will be but has not begun to be cannot. If imagination try to hasten time to come and to seize it, it attains only to what we call an anticipation of the future. Now this only takes place in the present. If the Future is real for consciousness only, it is there real only as Present. But as little as we can bring the Future into unity with ourselves can we deny it. We cannot regard the Present as the absolute end of Time. We cannot without contradiction assert that after the Present there will be no time to come—no 'will be,' no 'after'.

There is another contradiction involved in this view, which I must notice. It is supposed to give a kind of objectivity to Time, in affirming it to be the form of all individual minds. But the time which an individual possesses must be a different reality to the time of any other. For my time is subjective to me, and therefore is not capable of separating from me, and migrating into another consciousness. If it were capable of doing so, it would leave my consciousness a blank, without the possibility of events

¹ Lotze, *Metaphysic*, § 155.

occurring in it. But what we suppose is, that as I produce time out of my inner activity, so do other minds produce similar images out of theirs. It is the harmony of these different times which is the strangest thing of all. Why should the present time for me be the present time for them? They might be cast in a time which though present for them is past for me; or they might live in a future, which is only approaching for me, though actual for them. We could never touch hands across these time-distances. We should dwell apart like spirits in different worlds. Now this which appears possible we shall find to be a necessary consequence of the doctrine when we strictly apply it. For if I reflect on any time or duration, and think of different durations subsisting somewhere else, I must arrange these different durations either before or after one another, in which way alone can I think of them as different. It is because the finite Unity of Consciousness is embraced in the objective Unity of Time that the duration which is actual and present to one mind is actual and present to all.

I must, then, surrender the subjective doctrine of Time by reason of the contradictions to which I am brought. For it is opposed to necessary and self-evident judgments in its reduction of Time to a finite duration, and in the clean sweep it makes of Past and Future, which it must either deny altogether or confuse with the Present. Therefore, I cannot accept the half-way house which Lotze has set up for himself. For it is not able to account for the reality of Past and Future.

I shall now endeavour to follow out the Objective view of Time, so as to realise what its difficulties are, and if there are any latent contradictions in it. I shall work up by an analysis of Change to a more precise knowledge of its nature, of its relation to consciousness, and of the part of its infinitude which consciousness can combine in unity with itself; leaving the result to justify the method.

The simplest knowledge of Change from commencement to completion involves a manifold of judgments. I shall not try to explicate them fully, but those which are characteristic of it may be expressed by the following symbols :

- 1st Stage. S is P ; S is not Q ; S will be Q.
- 2nd Stage. S is ceasing to be P ; S is becoming Q.
- 3rd Stage. S is Q ; S is not P ; S was P.

In the second stage Ceasing and Becoming are necessarily united. For in a Ceasing which involves no positive Becoming, and in a Becoming which involves no positive

Ceasing, there is still a negative Ceasing or Becoming. Thus in the first case the new Present, which is distinguished from the Past by absence, has *become*; and in the second case the old Present, which is distinguished from the new by absence, has *ceased*. Now the complex judgments 1, 2, 3 conflict. They would be untrue and impossible in the same time; they are only possible in successive times. I cannot combine 1, 2, 3 together in one consciousness, but only the manifold of each one separately and exclusively of the rest. 1 is the stage before the commencement of the change, and 3 represents its completion. But 1 cannot be followed by 3 without the intervention of 2, which is a middle between the contradictories S is P and S is not P , that cannot possibly be excluded. In it S is neither P nor Q , nor the negation of either, but only ceasing to be one and becoming the other. In every consciousness of Change this stage must be combined in the Unity of Consciousness. Even where a process of change is too extended for entire combination, the parts which are combined still express Ceasing and Becoming. Now, it is important to notice, that 2 the process of Change involves a complex of judgments in which the stages 1, 2, 3 are repeated. For, to take only one side of this complexity, S in ceasing to be P is resolvable into S is P^1 , S is P^2 , S is P^3 , &c. Thus, if P is the place which a body S is ceasing to occupy, it is successively in the places P^1 , P^2 , P^3 . But the dynamical stage 2 has not been excluded. Change cannot be resolved into a series of motionless actualities. For S , in order to occupy P^1 , P^2 , P^3 , must pass through the stage of leaving each one and coming to the next. Each of these lesser stages of ceasing and becoming is again further subdivisible. But the judgments which they involve are not explicit. They do not enter into the Unity of Consciousness save on reflection. But when rendered explicit they are found to truly express the complex nature of change; and they enrich the conception we form of it. So when I watch the smoke curling up the chimney or listen to the clock ticking, the complex processes of change are not distinguished into lesser changes, divided by actualities or products of change. For these actualities, as they do not stand out as a completion of change—as in any continuous process of change they are not actualised *for* a time, but only *at* a time—are too subtle to be taken note of by the subject in its immediate experience of them. Thus what the subject combines into unity with itself in its consciousness of change is neither very minute nor very extended.

Now the process of change occupies some duration, being

in this unlike its momentary products, which in a continuous process occupy no duration. And here a distinction is obvious; the process is not the time which it lasts. Innumerable different processes can occupy the same time, but if they were all the times which they lasted, they would all be different times, instead of referring to the same time. Hence in the consciousness of the process there is combined, what is distinct from it, a consciousness of the time which it occupies. Therefore we are not confined to a bare point of the present, in which case the consciousness of change would be impossible, but extend over a real duration.

Beyond and on either side of this limit to time in consciousness, Judgment affirms the continuation of time to infinity.

Now the difficulty arises whether, while S ceases to be P and becomes Q, the duration M which it lasts ceases also, and a new duration N becomes in its stead; whether, that is, the 3rd stage S was P, S is Q, involves the judgment M was, N is? Now if the duration M does not pass with P, P in ceasing to occupy M must come to occupy another duration L, since it cannot pass out of time altogether. This L cannot be an actual duration like M; else P, instead of ceasing to be, would continue actual, in still possessing a present duration. L therefore must be a past duration, a duration which was actual, which has therefore passed through the stages of being actual, ceasing to be actual, and becoming past; and if L why not M? But this, though a plausible, is not a necessary inference. However, since L has been present, M has not been always present, for two durations cannot both be present—one must go before, the other after: M therefore has become present; surely then it must cease to be present? But this, too, is not a necessary inference. Again, when Q has become and P ceased, Q either goes on to cease in its turn or remains Q; in either case it occupies a duration. But this is not the duration M. For P was in M; but P and Q cannot occupy the same duration, or they would be both actual together. Q then occupies a different duration N. But Q is present or actual, N is therefore present. Now N and M cannot both be present together. Therefore, when N has become, M has ceased. But N has become when Q has become, and Q has become when P has ceased. Therefore M has ceased when P has ceased. I conclude, then, that P when it ceases remains in M, which ceases also, and does not pass into another duration L. I think I have shown, by following out the opposite conception, that Time is not a fixed and motionless form through which events

pass ; rather, like the ceaseless swell of an ocean, it rises and falls continuously.

But this change does not affect the whole of Time. As P ceases, the duration M ceases ; as Q becomes, the duration N becomes. When N is, M was : M has changed, but can change no more—it is petrified in the dead past. Again, as M is ceasing, N is becoming and will be. But O, which comes after it, will be, but is not becoming. The Future, then, which is not in process of becoming, is fixed *for* a time—it only will become. Again, change does not affect the order of the parts of Time ; M is always after L, and before N.

Another difficulty rises here. Suppose that S is Q, and remains Q for the duration O without further change, does O remain unchanged in correspondence with it ? Here we seem to be in a dilemma. For it would be a contradiction to suppose that O ceases before Q, since by our supposition it is the whole time which Q lasts. But, on the other hand, we get into difficulty if we assert that O remains fixed *for* a time, or, more correctly, since it is not located in another time in the background, that O is a fixed duration. For Ceasing and Becoming are continuous. If they were to pass, and to be succeeded by a statical condition of Time, what is to renew them ? This is a legitimate question to ask, for Time has not been always motionless. But there is another and more immediate difficulty. If Q by persisting unchanged can petrify O, O in its turn will render impossible any changes which might be synchronous with Q in O ; because in ceasing they would have to pass into the preceding time M, which we have seen to be impossible. But this is no real dilemma. For O, the duration of Q, is resolvable into the smaller durations $O_1, O_2, O_3 \dots$ &c. Now, *at* the moment that Q has become, O_1 has become, and it is at the same point of time that O_1 begins to cease, and O_2 to become ; and so of the other parts into which O is resolvable. Only when O_n is reached, which is the last fraction of the whole duration O, does Q begin to cease. Ceasing and Becoming is then continuous, and the duration of Q is this group of time-changes from O_1 to O_n .

Now what are the parts or durations into which this group is divided ? There is no preliminary difficulty as to there being parts, as in the case of Space. For the one actual duration is necessarily different from all the rest ; and they are necessarily different, in so far as they *have been*, or *will be*, actualised each one separately before the next. But the question is as to the nature of the parts. Now, however

small a finite duration is, I must affirm points in it, *at* which its several parts have become one before the other. Hence the parts, of which it is ultimately composed, must be infinitely small. These parts, it is obvious, altogether elude the unity of consciousness, and must elude it. Yet only one of them is actual or present at a time. Thus the real Present, like infinite Time, transcends the activity of the subject, and the present, which it combines in consciousness, is but the confused image of a number of infinitely small successive times, compounded into co-existence like the rapid revolutions of an object in Space, owing to its want of separating and distinguishing energy.

I must now turn to a difficulty connected with these infinitely small parts. M is necessarily before N, but how is this reconcilable with the assertion, that when M is ceasing N is becoming. Here are two durations in necessary and synchronous connexion. For if the ceasing of M did not involve the becoming of N, then when M had ceased a new present N would not be ready to take its place, as there can be no actualisation without becoming, and a veritable break would occur in Time. But the mere expression of such an opinion discovers a contradiction: the 'break would occur in time,' that is, time would *not* be broken, but only some connexion of events in it. The union of M and N is then synchronous, and the union of M and N is successive, but it is as ceasing and becoming that they are synchronous, and as actualised that they are successive. For when M has ceased, then, and not till then, has N become, that is, N has become after M has become, and at the point of time at which it has ceased.

I shall now conclude what I have to say on Time with two remarks. It is impossible with regard to it, as with regard to Space, to assert without contradiction, that the Time in consciousness is the reproduction of a real Time without. We can put no gulf of division between them which is not itself a part of Time. The time in consciousness is then a fragment of infinite Time, but a fragment of which all the minuter parts escape consciousness.

This points to the next remark, that it is impossible to break up the Infinite Unity of Time. Time is not first a scattered manifold of parts which are combined afterwards—in another time—in unity. Its combination does not rest with the individual subject, which reaches but to a small portion of it. Its Unity is not anything produced, which would require a time in which to produce it. Its parts *are* necessarily united with the whole and different from

one another. Such a Time is the bond of union of many minds, and of their past history and future. It is also the unity of all that is actual in Space with its past and future. Space as an eternal actuality is then in Time, but not Time in Space. Time is the 'will be,' the 'is becoming,' the 'is,' the 'is ceasing,' the 'was'. The 'is' is the base-point of the present, which is *at* but not *for* a time. But the present duration is the united 'is ceasing' and 'is becoming'; the past and future duration, the Ceasing and Becoming which was and will be. Thus Time as a whole is a Becoming and Ceasing which continues ceaselessly, which was, and is, and will be.

Here I conclude, not because I think I have said all that I should say on this matter, but from limitation of view, which always sets a limit to metaphysical inquiries. The fundamental problems which I have not fully investigated but which are yet involved in both papers, are the relations of consciousness, judgment, and their objects; the subject to which both are referred; the nature of self-evidence; the peculiar relation of representation to its object, and conception to judgment. These are the difficulties and problems which are most clearly involved in the foregoing, but of course they are not all; for in the treatment of any separate question in metaphysics there lies dormant and undeveloped the whole theory of metaphysics. Without farther development the position, which I have in the main only drawn in outline, cannot be fully justified. For though I have endeavoured to rely on judgments alone which are self-evident or necessary, yet I know how deceptive words are, how protean thought is, and how hastily the intellect seizes unjustified conclusions and confuses issues. Therefore I am in complete agreement with the German school in this, that without working out a philosophical position to all its consequences, without unveiling and testing its pre-suppositions, and without re-solving its difficulties and contradictions, none can be considered completely proved or satisfactory.