

for existence, which in the earlier stages of organic evolution reigns supreme, with the commencement of social evolution becomes steadily mitigated and transformed. It is equally true that social evolution, which starts with the paramount ascendancy of the tribal self, passes on to the liberation of the individual self; and, having accomplished this, proceeds to restore to the social self a final but transfigured masterdom. But these seemingly discontinuous phases are of the accidents of Evolution, not of its substance. The essence of Evolution is integration, with corresponding adjustment. So regarded, its march is strictly rectilinear and continuous: and it is of this continuous and all pervading element in it that the principle of Efficiency is the moral counterpart and corollary.

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#### IV.—"MIND-STUFF" AND REALITY.<sup>1</sup>

PROF. CLIFFORD'S Essay "On the Nature of Things-in-Themselves" (MIND IX.) was one of the most ingenious of his speculative efforts. No doubt, had he lived, he would have done much to give his thought a more satisfactory shape. But what he did makes him one of the plainest expositors of a doctrine that, in various forms, is now held by many among modern thinkers. "Mind-stuff," as the word shows, is to be a substance combining physical and psychical properties. In assuming the existence of such a substance, we are to satisfy the demands of philosophy both as to the explanation of external phenomena and as to the problems of mental phenomena. The effort is, therefore, in its nature philosophical. Whether the resulting doctrine is tenable at all we shall see; but no one can doubt the value for higher thought of the discussion of such questions as Prof. Clifford in his brilliant and earnest way here suggested.

In MIND XXI., 116, Mr. F. W. Frankland has sought to give the doctrine of Mind-stuff a more complete development. Consistency has often been fatal to ingenious doctrines, just as it has always been useful to thought in general; and more than one reader must have felt his dissatisfaction with mind-stuff not a little increased while reading Mr. Frankland's fearless statement of consequences. There is something fundamentally unintelligible in the assertion that "motion is mind-stuff, that

<sup>1</sup> This article, sent from Berkeley in California, was written before the appearance of Mr. Gurney's article on the same subject, in MIND XXII.—ED.

volume of feeling is mass, and intensity of feeling velocity"; and even of conjectures (for Mr. Frankland throws out the assertion merely as a conjecture) we demand intelligibility. Nor have the brief and pointed criticisms that Mr. Shadworth Hodgson<sup>1</sup> made upon the philosophical consequences of Prof. Clifford's theory, as yet been answered. And Wundt, whose statement of a theory substantially the same as his own was cited by Prof. Clifford, has expressly disclaimed any assumption that his view is more than a hypothetical completion of the ordinary scientific *Substanzbegriff*.<sup>2</sup> Evidently then, if this Mind-stuff theory is to be of any permanent importance for philosophic thought, the whole matter must be subjected to a severe critical examination. This theory is as yet only in swaddling clothes. We have still to decide whether the child ought to be brought up, or whether, for the good of the state, it must be exposed on the mountains.

The doctrine is new, but the effort is indeed old, and hundreds of volumes have been filled with attempts to prove that nature is in some way full of soul. We can judge of all such discussions only by the use of the method of critical analysis, joined, as such analysis must be, with a constant appeal to inner and outer experience.

## I.

"The elementary feeling is a Thing-in-itself," says Clifford. But what is the elementary feeling apart from a consciousness into which it enters? As we go back, answers Clifford, along the line of the human pedigree, the organisms that we encounter become simpler and simpler, and so, as we suppose, the complexity of consciousness diminishes also. But where are we to say that consciousness ceases? The continuity of the series forbids us to say that consciousness ceases anywhere. "As the line of ascent is unbroken, and must end at last in inorganic

<sup>1</sup> *Philosophy of Reflection*, I. 174, ff.: "I am not here concerned," says Mr. Hodgson, "with the theory of Mind-stuff. . . . My wonder is to find any one ambitious of having Things-in-themselves as an item in his philosophical system."

<sup>2</sup> Wundt's words are (*Phys. Psychol.* 2te Aufl. Bd. II., pp. 459, 460):—"Es versteht sich aber von selbst dass der so erweiterte Substanzbegriff" (that is, the concept of material substance as at the same time possessed of psychological attributes) "ebenso hypothetisch ist wie der ursprüngliche, und dass er überdies so zu sagen von bloss transitorischem Gebrauche sein kann". Of the new as of the old notion we know that it is our own product, not a revelation of reality. "Hier weist überdies schon die nicht zu ungehende Nöthigung, das Verhältniss des Physischen zu dem Psychischen mit dem des Aeusseren und Inneren in Parallele zu bringen, auf einen solch' transitorischen, für das wirkliche Sein der Dinge nicht massgebenden Charakter unserer hypothetischen Begriffe hin." For this idea of "outer and inner" is of but figurative application here.

matter, we have no choice but to admit that every motion of matter is simultaneous with some ejective fact or event which might be part of a consciousness." And so the eject-elements exist independently and form the great world of mind-stuff, which is itself the reality that we perceive as matter. Furthermore, we have the proportion existing: As cerebral image (physical) to physical object, so is perception to thing-in-itself. Whence it follows that the thing must be of like nature with the perception. The material universe is, therefore, an imperfect picture in a man's mind of the real universe of mind-stuff. So far Clifford; let us now examine the notions herein involved.

And first, one must speak of a certain vague use of terms that disfigures many of the arguments on this whole question, and that we must avoid in discussing Prof. Clifford's doctrine. To illustrate the union of physical and psychical, which this doctrine, together with other allied doctrines, seeks to prove as a fact of nature, one sometimes sees used the figure of a "two-sided reality". One reads of the "two aspects," neural and psychical, physiological and psychological, objective and subjective, of certain phenomena. Especially, of course, are the facts of physiological psychology thus interpreted. Mr. Lewes was a great sinner in this respect, and Mr. Shadworth Hodgson's criticism of his language<sup>1</sup> seems to the present writer very satisfactory. But Mr. Lewes was not the only sinner. Mr. Bain has spoken<sup>2</sup> of the one substance with two faces, which we must study, "not confounding the persons nor dividing the substance"; as if the language of the Athanasian Creed were just the form of expression to throw light on a question of modern philosophy. Wundt, notwithstanding his own above quoted remark, has used<sup>3</sup> words that are open to a similar charge of vagueness, declaring "dass was wir Seele nennen das innere Sein der nämlichen Einheit ist, die wir äusserlich als den zu ihr gehörigen Leib anschauen". And, in fact, such phrases are as common as they are hard to understand. As a kind of shorthand expression for a whole system, such a phrase may, indeed, be justified. But if one intends it not merely as shorthand, but as the adequate formulation of a philosophic truth, then we must reply that the formula is no better than the *virtus dormitiva* of opium, or than the "abhorrence of a vacuum" as an explanation of the ascent of water in pumps. It is another case of our willingness to cheat ourselves with words.

This criticism may seem presumptuous; but it will not be

<sup>1</sup> *Philosophy of Reflection*, II. 40, ff.

<sup>2</sup> *Mind and Body*, p. 196.

<sup>3</sup> *Physiologische Psychologie*, 2te Aufl., II., 463.

hard to justify our assertion. The point is one of the greatest importance for all the following argument. This expression, "one reality with two sides, or faces, or aspects," is of course a figure. One thinks of the shield in the fable, or of a coin, or of a mountain. These things are the prototypes of this reality. Now what is, literally speaking, the reality in question? A nervous process is a coexistent, a necessary or an indispensable coexistent of a certain mental fact, *e.g.*, a sensation. Now this ultimate mystery is supposed to be philosophically explained by saying that the two facts are the inner and outer aspects of the same reality. Is this any explanation? We get back our fact, plus a worn out metaphor. Are we aided? "Inner and outer," what is the sense of these words? Is the sensation inside the neural process? "One reality"; but what is the one reality? Is it the physical process? No, that would be materialism. Is it the sensation? No, whoso thus believed would be one of those subjective idealists whom nervous physiology is there to refute. Is the reality then simply the sum of the two phenomena, the fact that they coexist? Then why talk of a mysterious one "substance," that must not be "divided". "Das ist das Hexen-Einmaleins." What we mean by material, what by mental phenomena, remains indeed a problem for further research. But how we are brought in the least nearer to an understanding of either problem by the introduction of this imposing "monistic" fiction, is hard to see. Pains we know, and motions we know, but what is this third Unknown, whereof a group of motions is the outer, and a pain the inner face? The old story is repeated; here as usual in metaphysical abstractions we find simply a new puzzle introduced to solve an old one. Nerve-activities were mysterious things, and their connexion with the mind likewise mysterious; hence in previous generations men heard of useful "animal spirits," which were responsible for the whole task of conveying impressions to the mind. One fiction is now passed, but the other cometh quickly; and the mental world is now to be glued fast to the physical by means of a patent preparation called a Substance. Have we never heard of Substance before in philosophy that we should all run to listen to the first proclaimer of a new one?

But then, it will be said, the conception of the one sentient and moving substance is after all but a brief expression for the physical fact of the union of the two sets of phenomena. No harm can come from a mere figure, from a fiction of language. No harm to be sure, we reply, if one is conscious of the fiction when one uses the words. But most seem to be unconscious of the fiction, and yet are highly pleased with the words. Not

merely to sum up scientific facts, but dogmatically to make insignificant assertions stand in place of facts, is the language that we have criticised often used. When Schopenhauer declared the Will to be "die Causalität von innen gesehen," he imagined that he had stated a very profound truth; and his "insight" was employed to make all natural laws the expression of Will. We may or may not accept his theory; but we shall not admit that the clever metaphor had anything to do with the proof thereof.

But still it may be maintained that we all distinguish mental and physical facts, that we commonly, and without fear of confusion, call them respectively internal and external facts, and that speaking of them as phenomena of one substance or reality is of use in pointing out their causal connexion. But in fact, as we must answer, this theory of the double-faced substance is founded on the denial of the existence of causal sequence between the physical phenomena on the one hand and the accompanying feeling on the other. This theory is framed especially to lay stress on the fact that physical phenomena as such cause physical, mental as such cause mental phenomena, or that at the utmost mental phenomena affect the physical, but not the reverse. The theory wishes to express the fact of the necessary coexistence of the two groups of phenomena, as distinguished from any influx that might be supposed to take place from the world of matter into the correlate world of consciousness. This fact, however, is, as we have seen, best expressed without any use of the terms of this ambiguous and dangerous theory.

The theory of Mind-stuff has therefore no magic to change one whit the nature of the problems of matter and mind. These problems may be better stated by the theory, but they cannot thereby be solved. For prove to us that the connexion between mental and physical phenomena extends throughout the whole universe, and that every motion of every atom is accompanied by some rudimentary psychical event; still you have not in the least altered our philosophical theory of things, nor thrown any light on the nature of the union of the two sets of phenomena. To say, "every atom is possessed of a little fragment of mind-stuff," tells us nothing about the nature either of the atom or of the mind-stuff. To say, "but the atom is the mind-stuff," or "what outwardly exhibits itself as a material atom inwardly shows itself as an elementary mind-atom"—this is to use the above condemned artifice of veiling a problem under a form of words. The *what* that thus is two entirely distinct things at once, is an indefinable and incomprehensible product of misused language. There is, by hypothesis a mental, and

there is also a physical fact. These are coexistent, and necessarily so. The Mind-stuff theory tells us nothing new about the facts or about their correspondence. It lumps together two sets of facts, and calls the aggregate by a new name.

## II.

Yet perhaps it may be objected that the Mind-stuff theory does not so much assert the existence of an unknown something behind the two distinct sets of phenomena, as the actual identity of so-called physical phenomena with mental phenomena. An adherent of the doctrine in question might state his case thus:—"No mere artifice of language is intended. The theory means simply this, that there are, properly speaking, no real material phenomena at all. There are only mental phenomena, more or less complex. One does not speak of any substance apart from the phenomena. One means only that all real facts are 'ejective' facts. Just as we admit that there are minds behind certain material phenomena, *i.e.*, behind the voluntary motions of men and of higher animals, so the theory wants us to admit mental facts as the ultimate explanations of all material phenomena."

This statement seems more plausible than the last. I have thoughts and express these in word or in act. My neighbour's thoughts are affected by mine, but not by the direct knowledge of what is in my mind. To my neighbour my thought is known only through its physical expression. This is to him the phenomenon, of which the ejective truth is my mental state. So then with the atom. Its little fragment of mental life is expressed to the little fragment of mental life next it, to its neighbour atom, in the form of such a modification as collision or as attraction. But impenetrability is not the fundamental property of the atom. Impenetrability is only the atom's way of showing its own little mind, just as my way of showing my thought is by outward resistance to aggression, or by some other bodily act.

But then, if we are to be thus thorough-going, and to admit none but mental facts as ultimately real, can we explain the phenomena of the physical universe? Not, as will be seen, on the assumptions made by the Mind-stuff theory. That all existence is for consciousness the present writer fully believes. But this philosophical doctrine is not identical with the Mind-stuff hypothesis. For the believer in mind-stuff, existence and consciousness are by no means coincident. Mind-stuff, in its ultimate fragments, is wholly destitute of the complication the unity and the activity that constitute conscious existence. The

mind-stuff atom is of psychical nature, but unconscious ; it is not, like Hartmann's Unconscious, already intelligent, but it is not necessarily even a part of a consciousness. Therefore in arguing against this anomalous product of modern ingenuity one is not arguing against Idealism or Phenomenism as properly understood. Mental facts are the ultimate reality ; but not such mental facts as these of the Mind-stuff theory.

But let us examine the consequences of the theory. There are no realities except fragments of mind-stuff. These are joined in complex masses to form minds ; or again are more simply combined to produce inorganic phenomena. All grades of complexity exist, from the elementary bodies up to man's brain. Together these bits of mind-stuff are responsible for the whole world of phenomena.

But pause. What is left of the world of phenomena ? There are only fragments of mind-stuff, and these are ultimate and simple. We must think them after the analogy of our own simplest mental states, *viz.*, of our sensations. They are far simpler than even these, and, no doubt, far less intense ; but they are analogous. What follows ?

First, there is no real space remaining. Space-relations are unreal and illusive. For if there are only sensations, or ultimate simple psychical phenomena analogous in nature to our simplest sensations, only fainter and simpler, then there is no possible meaning in saying that there is any space. There are no doubt in many of our simpler states of consciousness, in all the data of at least two of our developed senses, space-elements constantly present. But in these cases there is existent a complex consciousness. Space-knowledge is a part of this complex, inconceivable without it. Ultimate mind-elements, conceived after the analogy of our simplest sensations, have a time-element, and an intensity as well as a quality. But of a space-element in each, and of space-relations such as distance and direction among these elements, who shall venture to speak ? What meaning would there be in Euclid's axioms if the world were composed wholly of elementary sensations not grouped into conscious minds ? Are pains in themselves above or below other pains ? Is an emotion of love or of hate distant an inch or a mile from other emotions ? When I listen to a tragedy or read a treatise on metaphysics, are my thoughts in spatial relations to one another ? And even when sensations are for us grouped into wholes in space, as the sensations of touch that come to me from this table are grouped, do we properly say that the elementary sensations apart from the consciousness that groups them are already in space ? We shall be certain then that at least some mind-stuff is non-spatial. And where then

shall we stop? Plainly space-relations will belong not to the noumenal mind-stuff atoms, but to the fashion of perceiving determined by the nature of consciousness. I then perceive the non-spatial mind-stuff, and perceiving give it the space-form?

But I, too, am a mass of mind-stuff. And this brings us to the second consequence of the doctrine. One mass of mind-stuff perceives other masses. Or again, since the law of interaction is supposed to apply to inorganic physical phenomena as well as to the higher phenomena, every atom of mind-stuff affects other atoms. But how is this conceivable? When I perceive a mountain, there is an alteration in the mind-stuff of which I consist. New stuff is added, or old is removed, or the disposition of what is present is changed. But how? The ultimate fact for my consciousness is: The mass of mind-stuff that constitutes me is altered. How can this change be effected by any change in other mind-stuff? The answer of course will be: The alteration of one fragment or mass of mind-stuff through the action of another fragment or mass is an ultimate and mysterious fact, whose laws are to be studied, but whose reason is unknown. But still one asks, in what way is the change to be conceived? And the answer is not easy. Suppose, first, that the ultimate atoms of mind-stuff are absolutely unchangeable in nature, and incapable of destruction or of increase in number. So to think these atoms, would be to use the analogy of the more rigid atomic theories of the physical world. Assuming this view for a moment, let us consider the result. The mind-stuff atoms cannot be destroyed or created or changed in nature. Hence only their grouping can be altered. Some change, rhythmic or otherwise, in the grouping of the mind-stuff atoms in the thing I see, produces an alteration in the grouping of the mind-stuff atoms in me, or perhaps takes from or adds to my stock of mind-stuff atoms. The result is that change in me which is called a perception of the object. But how or in what sense is a new grouping of mind-stuff atoms conceivable? A change of grouping is conceivable if the things grouped are outside of one another in space. Their direction and distance may be altered in an infinite number of ways. But here is the mind-stuff atom *a*, and the other atom *b*. These atoms are, it is to be remembered, mental facts and nothing more. They are "ejects". How can these change their relation to one another, *i.e.*, their grouping? The groups *ab* and *ba* could be formed, *a* might be conceived above or below *b*, distant an inch or a league from *b*, or what else you will, so long as *a* and *b* were things in space. But *a* and *b* are here not things in space. What can distance or precedence or above or below mean, when applied to relations between two independent mental facts?

A very easy question, some one may reply. If to any consciousness *a* first is present and then *b*, a very different total impression may be made from the impression produced by the appearance first of *b* and then of *a*. Pour water into a previously-prepared glass, and the result is easily distinguished from the result of first pouring the water and then preparing the glass. No doubt; but see the admission thus made. Given the consciousness in which *a* and *b* are grouped, given the one reflective judge, before which *a* and *b* appear, and then the grouping in time of *a* and *b* may be important. But that developed consciousness is, for the Mind-stuff theory, not yet deduced. Here is a complex of mind-atoms. What can be meant by any grouping of them whatsoever, and *à fortiori* what can be meant by that complex grouping known as a consciousness? This is the very question at issue. Each mind-atom for itself exists in time, and so, if you choose, co-exists with all the others. Thus there is a grand aggregation of all. But where is any union into groups? Where is any meaning for the words “alteration of grouping”? How is, then, any law conceivable by which one group is connected with any other? How can a change of one group affect any other?

It is plain all this talk about the grouping of mind-atoms is nothing but a barren figure of speech. We are used to space-relations, and to laws connecting one group of material particles with other groups. Now, however, for the sake of solving certain problems, we have determined to assume once for all that in reality there exist, not material particles, but ultimate feelings or mind-atoms, fragments that might be joined into a complete consciousness, but that may exist apart therefrom. Now, when from these atoms we try once more to build our world, we are debarred from using the ideas derived solely from the experience of matter and of space. These mind-atoms are not hard and mobile, they are not at various distances from one another, one is neither above nor below another, nor in any other like relation. Such words applied to mental phenomena are simply nonsense. Our first problem is this: to find ways of conceiving how these ultimate mind-atoms may be so related among themselves as to produce and explain the phenomena observed in the appearances of material things. Our answer to the problem is thus far wanting. And wanting, we affirm, the answer must remain. For the only groupings of such ultimate unchangeable mental facts conceivable to us are groupings in and for a consciousness. Without a consciousness mere sensations can never be definitely grouped. Given a “looking before and after,” a comparing, discerning activity, a reflection, and then different groupings of mental facts may be conceived.

Even then, however, the grouping would imply something besides a mere dead co-existence of ultimate atoms of mind. The grouping would imply attention, and so change of intensity, reproduction, temporary or total destruction of the mind-elements concerned; and all this, if you suppose only ultimate co-existent atoms, is not conceivable.

But one may change ground and say that the mind-atoms are not wholly unchangeable. In fact, if one does not do this, it is indeed hard to see how even such a material phenomenon as the collision of two atoms is to be interpreted into the language of mind-stuff. For physics there is nothing inconceivable in the phenomena of collision, granted only the conceivability of matter and of motion. But for the Mind-stuff doctrine the case is different. What motion may mean, or what, if "motion is mind-stuff," the matter over and above the motion may mean; what a bit of mind-stuff may experience when its velocity changes, when its direction of motion changes, when another bit of mind-stuff is in its path (think of the "path" of a sensation);—all these questions, puzzling enough in themselves, would be in all seeming absolutely beyond solution, if one may not assume some continual alteration in intensity or in quality in the ultimate mind-atom itself. Suppose, then, that the world consists of fragments of mind-stuff whereof each one is endowed with a capacity for the change, within certain limits, of its own intensity and quality. Suppose, also, that by some pre-established harmony (other source is hardly well conceivable) the alterations in one atom are uniformly connected with alterations in other mind-atoms, according to fixed laws. Then, indeed, the world of mechanism, of dead matter and motion, could be in a manner conceived. That is, one could understand how to each simple phenomenal mechanical effect, *e.g.*, a blow or a push, there corresponded some noumenal alteration in the mind-stuff atoms. Even the law of the conservation of energy would be capable of expression in terms of such assumed elements. Since velocity and mass would be interpreted in terms of ultimate alterations or permanences in the mind-atoms, all laws about velocity and mass could be expressed in the same terms. But consciousness? Here we pause, not a little doubtful. Is consciousness a mere aggregation of atoms of feeling?

All consciousness is a synthesis of many elements into unity. The consciousness of the parts of a rose or of a house exists more or less vaguely in my mind. In saying, "This is a rose" or "a house," I actively combine these parts into a whole that is more than their sum. The parts are, as parts, mutually indifferent. Add to the present sensations any number of faint revivals of past sensations, and you have still only an aggregate of

disjointed discontinuous elements, until in the "unity of apperception," continuity and wholeness shall be granted to the aggregate. If *a, b, c, d, e, &c.*, are separate and really distinct elementary feelings, say of colour, I see not wherein shall consist their continuity as mere elements. How out of them shall there arise in me the perception of a continuous coloured surface? Physiological psychology can here be of no aid. That science supposes consciousness and outside reality as ultimate realities, and seeks to determine the relation of sensations, simple and complex, to external reality, to nerve-processes, and to consciousness, and in like manner to determine the relations of consciousness to external reality and to the accompanying nerve-processes. In no wise does this science undertake to deduce consciousness from what is not conscious, any more than it seeks to make external reality appear a product of mind. But the Mind-stuff theory seeks to build up consciousness, with all its activity, out of unconscious elements. The theory can only succeed in case consciousness can by any possibility be shown to be an aggregate of elements in themselves unconscious. Can this be done? Our aggregate of colour sensations, is that the perception of a coloured surface? Add to the aggregate any number of associations with past sensations of movement or of touch: have you yet the idea of a coloured surface? No, make the associations, as complex as you will, they remain side by side, indifferent to one another, a discrete manifold of materials for consciousness, but not yet a consciousness. But in conscious life we do not find discrete manifolds of sensation that simply come and are passively received. Sensations are always grouped into wholes, and the wholes are known by and in "acts of unity". "This is a rose," I can say. "This is a complex of colour sensations with associations of movement, touch, and smell," I can also upon reflection say; but then, too, I have grouped facts of consciousness into a new unity: I have not succeeded in getting an aggregate of separate sensation-elements. And so consciousness is always more than a sum of sensation-elements; while, given a sum of sensation-elements, there is no way of seeing how by themselves alone they can ever become a consciousness.

In nature it often happens that a manifold of distinct parts results in an unity that is not a mere sum. So every organism, so even every chemical compound, exhibits properties qualitatively different from the properties of the constituent parts. But how are these properties of the compound manifested? Only in the behaviour of the manifold towards the world external to itself. In itself a mass of parts, the whole behaves as one when it comes into relation with other things. The compound molecule is a sum of atoms. But in its behaviour as a molecule

towards other molecules it shows new qualities, and so is more than a mere aggregate. The organism is an aggregate of tissues. But in its behaviour in the presence of the outer world it shows adaptation and an integration of parts, so that we call it one, not a mere aggregate. A mere combination is, when regarded solely in and for itself, never an organised whole. Aggregations are organised wholes only when they behave as such in the presence of other things. A statue is an aggregation of particles of marble; but as such it has no unity. For the spectator it is one; in and for itself it is an aggregate: just as, to the consciousness of an ant crawling over it, it may again appear a mere aggregate. No summing up of parts can make an unity of a mass of discrete constituents, unless this unity exist for some other subject, not for the thing itself.

But consciousness is, in and for itself, an unity, containing a multiplicity of parts, but not wholly made by the summation of these parts. Now, given a sum of mind-atoms, how shall consciousness arise out of them? This complex is to be one. How? In its behaviour towards the external world? Then it would seem one to a higher intelligence, contemplating its behaviour, not to itself. In its symmetry or perfection of structure? Here again only another being, contemplating its perfections, would regard it as one. In and for itself then? But how? The elements *a, b, c, d, e, &c.*, are in some mysterious way together, not in space (for they are feelings), nor in another mind (for they themselves are to constitute the whole of some individual mind), but somehow together. And they form in and of themselves but a single consciousness. To this end, is *a* the one element that *apperceives* all the rest? Is *a* then the one unity? Then *a* is the consciousness in question, and not a mere elementary sensation; while *b, c, d*, are superfluous or at least accidental constituents. But are all of them the unity? This is impossible; for by hypothesis these elements are in and of themselves many. There is then no unity, no consciousness possible. And let no one answering say: When I look into my consciousness I find nothing there but an aggregate of impressions arranged in certain forms. No doubt that is all you find—besides that which you have chosen to call "I" and the act of "looking". Apart from the unity of the consciousness of any moment there is doubtless nothing but multiplicity. But this unity itself, what of that?

The present writer does not wish to seem unduly fond of entities of any sort. This "self-consciousness," this "unity," these "forms" in which impressions are arranged, no doubt all of them need further analysis and explanation. No doubt it is overhasty to make them the ground for assuming any spiritual

entity, any soul-substance or absolute self or other figment as their cause or substratum. Metaphysicians have doubtless abused these facts of consciousness; but the facts are none the less there. And the present essay wishes to point out that, be the explanation of the facts what you will, the Mind-stuff doctrine fails to give a possible explanation.

Our objections to the hypothesis of Prof. Clifford are then: First, that if the theory is understood as offering the current “monistic” explanation of the connexion between physical and psychical facts, *viz.*, the explanation that these facts show different sides of one reality, then the theory is merely a sort of scholasticism revived, and substitutes a dead word for a living problem. Secondly, that if by the theory is meant that physical things are nothing but aggregates of ultimate simple mental realities, these realities or feelings, if conceived as unalterable, fail to explain anything and, even if conceived as changing in particular fashions, still fail to explain consciousness. Thirdly, that, since all changes of grouping, of distance, of direction, are excluded from the world of reality by the hypothesis in question, all change will be change in the interior of the individual mind-atom, and that thus the theory is committed to a method of regarding the world which will at best involve us in enormous difficulties as soon as we try to explain actual phenomena.

The importance of the questions involved has detained us longer over this theory than some may think necessary. And in truth mere refutation is unprofitable except as preparing the way for positive results, results either already in our grasp or still to be sought. The present writer is confident that a theory can be suggested as a solution of this problem, a theory that shall be at once idealistic and critical, just to the facts of consciousness and adequate to the demands of the philosophy of nature. Such a theory, if formulated, will not deal in entities nor in substances, spiritual or material, but will simply and accurately state what we mean and imply when we assert the distinction and the connexion of physical and psychical phenomena. To the statement and proof of such a theory, the writer hopes to devote his efforts in a future paper. At present he is content with formulating a purely negative result.

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