

SCIENCE AND IMMORTALITY.

INTRODUCTION.



IF a man die shall he live again? This is a question which every one of us must seriously face, and answer to ourselves, sooner or later, and upon this answer will largely depend our conduct and our views of life itself.

As age draws near, and youthful ardor gives way to retrospect; as one by one friends pass from sight, and the common fate confronts ourselves; are we to face our coming doom with the despair of the condemned criminal, or

Like one that wraps the drapery of his couch
About him, and lies down to pleasant dreams?

The Christian meets the issue with a hope that reaches beyond the grave. But even to the Christian must come times when the hope grows dim and doubts press in, and he is forced to realize that hope alone does not necessarily imply conviction. Even such hope has been comparatively a late comer into the world, and multitudes of the human race have lived and still live and die without it. Thus the answer of human testimony is conflicting. Unlike the belief in freedom of the will, the belief in immortality is not an immediate deliverance of our consciousness, but rather an attainment, more or less difficult to all, and not to be accomplished without effort. To this belief the Christian attains through acceptance of revelation and faith in the assurances of a divine messenger to man. This must ever be the most satisfying, readiest, and most common method of attainment—a method which appeals to all, and which requires no philosophic study for its apprehension. But we think it will be the uniform testimony even of the Christian believer that faith is not always triumphant. As we stand by the bed of death and watch the unconscious struggles of departing vitality, nothing manifest but the automatic action of the physical machinery; as we survey the lifeless form, and stand by the open grave; or as we mark the sudden extinction of life,—at one moment view a self-conscious, self-determining personality, the next behold but an inert, lifeless form,—who is there who has not felt the rise of questionings which can never be answered, and, face to face with this mystery of daily experience, felt the risings of doubt, and realized with sinking heart that faith is not always the

companion of conviction? The heart would fain believe, but the intellect falters and hangs back. It becomes therefore of supreme importance to all earnest minds and loving hearts to inquire whether this faith can be securely linked to intellectual conviction. Must it ever and always rest upon revelation alone, and can we never expect to find, outside of such revelation, at least such a reinforcement of its claims as shall insure unassailable belief?

From this point of view the question, What has the science of to-day to say about the problem of immortality? appeals to all. Viewing the universe from the standpoint of science alone, does immortality, or a future life for man, appear as the only reasonable conclusion?

If any large number of representative men of science were thus interrogated, a small number would undoubtedly be found to hold that there is scientific evidence both for and against such a belief. A somewhat larger number, possibly, might reply that such scientific evidence as existed at all was dead against any belief in immortality. But undoubtedly by far the larger number would insist that such belief must ever rest upon grounds which science does not touch at all, and that all such questions are entirely beyond its scope. For this latter class Professor Huxley has well put the case for all.

“With respect to immortality,” he says, “as physical science states this problem, it seems to stand thus: Is there any means of knowing whether the series of states of consciousness which has been casually associated for three-score years and ten with the arrangement and movement of innumerable millions of successively different material molecules can be continued, in like association, with some substance which has not the properties of ‘matter and force’? As Kant said, on a like occasion, if anybody can answer that question, he is just the man I want to see. If he says that consciousness cannot exist except in relation of cause and effect with certain organic molecules, I must ask how he knows that; and if he says it can, I must put the same question. And I am afraid that, like jesting Pilate, I shall not think it worth while (having but little time before me) to wait for an answer.”

SCIENTIFIC EVIDENCE OF A FUTURE LIFE.

THESE three positions would, I think, include all men of science. I wish to discuss here the

first position, viz., that there *is* scientific evidence for the belief in a future life.

Professor Huxley's statement of the problem, just quoted, does not put the issue exactly, as we apprehend it. The belief that consciousness can be continued hereafter "in association with some substance which has not the properties of matter and force" is one the very statement of which removes it at once from the pale of scientific discussion. With regard to such a belief Professor Huxley's remarks seem quite pertinent. But a belief that the same consciousness which has in the past associated itself with myriads of successive molecules, by that very fact proving that it depends in no wise upon specific molecular arrangement, can continue in the future so to associate itself with other successive molecules, is a very different belief from that which Professor Huxley attacks. Belief in a substance which has not the properties of "matter and force" does not appear essential to belief in a future life. The future life we believe in is based directly upon the manifestations of matter and force as interpreted by science, not upon their negation, and if any one asks how we know anything about such a belief, that is just the question we purpose to answer.

Upon this question science appears to me to have much more to say than has been commonly supposed, and what it has to say seems quite as conclusive as many beliefs which are unquestionably held upon scientific grounds. It is always within the province of science to employ legitimate inferences from observed facts. Its proudest claim has been its ability from a study of the past to foretell the future, and if this process is to continue to be considered as sound, then it seems to me that science, as it exists to-day, furnishes material for an argument of the greatest strength in favor of immortality.

Perhaps the most brilliant and striking illustration of this power of scientific method is furnished by the discovery of the planet Neptune. By rational inference from observed facts the conclusion was reached independently by two astronomers, Leverrier and Adams, that far beyond the orbit of Uranus another planet must exist. By further rational study of the known facts the place of this new planet was fixed. Finally, when Dr. Galle turned his telescope to the indicated place, the planet was found.

Suppose, now, that when Dr. Galle thus turned his telescope to the place indicated no planet had been observed. Suppose that, from that time till now, we had never been able to verify the result of the astronomical calculations. What, under the circumstances, would have been the scientific value

of the conclusions of Leverrier and Adams? Would the conclusion have been any less scientific because not verified? Would such verification by actual sight have been considered essential to establish the validity of the conclusion that such a planet must exist? By no means. Astronomers undoubtedly would have been forced to conclude that, whether visible or not, the planet existed. This conclusion would have been necessitated by the consideration of the observed facts; and even though the test of experimental verification were forever withheld, the existence of such a planet would have been regarded by them as an undoubted fact, and not as a visionary speculation.

Now the scientific argument for a future life is similar in its character to this supposed case. Irresistibly indicated by the facts, the character of the argument and the validity of the conclusion are not less scientific in every sense, and should be no whit less conclusive even though the test of experimental verification is withheld.

But in every case of satisfactory inference the argument is based upon certain accepted principles. In the scientific analysis which led directly from the observed facts of certain irregularities of motion in the orbit of Uranus to the conclusion of the existence of Neptune, the fundamental principle was the law of gravitation. Observe that such irregularities were, considered in themselves, facts which were apparently in direct contradiction to the accepted principle; but instead of regarding such facts as evidences against this principle, the discovery itself consisted in bringing them into harmony with it. That supposition, which was necessary and sufficient to produce such harmony, was thereby constituted a sound conclusion. Without this fundamental principle no conclusion could have been reached. Indeed, without this principle astronomy itself would be only a mass of empiricism, and could have no philosophy nor ever rise to the dignity of a science. Men might observe the heavens and multiply observed facts, but the key to their interpretation would be wanting. Under such a state of things we might conceivably find astronomers themselves regarding the probable existence of a planet beyond the orbit of Uranus as a very problematical hypothesis. They might, in such cases, divide into three parties upon such a question, just as scientific men now do with respect to the question of a future life. Some might hold that there was evidence for and against the hypothesis, for it would at best be only an hypothesis. Others might hold that the facts were dead against the existence of any such planet. Others, again, might claim that such a question was entirely beyond the scope of astronomical science, and remark that "if

any one knows of the existence of such a planet, as Kant said upon a like occasion, he is just the man I want to see; and if he says there is no such planet, again I must ask how he knows that." This would evidently be the position.

But now introduce the fundamental principle of gravitation, with all its logical consequences, and see what a change. At once order comes out of chaos. Observed facts take on mutual relations, and lead to irresistible conclusions. The statement of the existence of a planet beyond the orbit of Uranus is now seen to be a necessary result of the constitution of the heavens. The facts before supposed to be dead against such a supposition are now the very ones which lead to its acceptance, and there is one attitude of universal consent. Whether the planet can be seen with the naked eye, or with the telescope only, or not at all, still its existence must be accepted because it alone can bring the observed facts into harmony with the demands of the fundamental principle.

To give to our discussion of the question of immortality scientific value, therefore, we must be guided by some similar principle upon which scientific men will agree upon purely scientific grounds. Without such a principle we cannot expect observed facts to reveal mutual relation, or to lead to convincing conclusions. Without it, the belief in immortality must, from the point of view of science, be regarded as but an hypothesis. But if such a principle can be established on scientific grounds, we may then expect general assent. Whether the conclusion can be verified by experience, it is at once taken out of the region of debatable hypothesis, and takes rank as a scientific inference which must be accepted, if found to be in harmony with accepted truth.

Can we establish such a principle as a guide for our discussion, which shall thus bring order and relation into the observed facts, and in the light of which we can hope to read the future of the race? And can we firmly establish this principle upon purely scientific grounds?

I think we can, and this principle I would state as follows:

The universe in all its parts is the visible manifestation to us of underlying mind, and all interpretation by us of the phenomena of nature should therefore be guided by the assumption of underlying purpose.

This principle I hold to be the direct outcome of what we know of nature, as necessary for harmonizing our knowledge as the assumption of the existence of Neptune, and I therefore claim it as a strictly scientific deduction from known facts. Let me briefly give the process by which it is, to my mind, completely established as a scientific conclusion.

It is admitted as an undoubted fact of sci-

ence that the universe is so constructed that any change in any of its parts is a change which affects the whole. This is but a restatement of the law of gravitation itself. If the motion of so much as a single atom of matter is changed, the motion of every atom in the universe must be thereby affected. Every man of science will admit this as a certain conclusion of science.

It is also admitted as an undoubted fact that physical contact between any two atoms or ultimate particles of matter never takes place. The nearer they approach, the greater the force of repulsion between them. Whatever theory of the constitution of matter we accept, whether we adopt the hypothesis of a discontinuous ether or the vortex theory of Sir William Thomson, it is accepted as conclusively demonstrated by experimental test that atoms can never come in contact.

But if this be so, how is it that a change of motion of one atom can affect not only the neighboring atoms, separated as they are by spaces which relatively to the size of the atoms themselves are immensely great, but can also affect all other atoms in the universe? No mechanical answer to this question has ever been found. It is and has always been an inscrutable mystery. From the physical point of view this mysterious fact has no counterpart in what we observe, no analogy in our experience, and cannot therefore be explained in terms of the rest of our knowledge.

But now, when we come to a study of our own organism, we find this mysterious fact to have a very striking connection with our daily experience. We find the evidence incontrovertible, that within our organism certain portions of matter are governed by mind, and move in accordance with the dictates of will. Thus every voluntary motion which we control is a manifestation of underlying mind. As we follow the sequence of cause and effect, we finally arrive at some molecular brain-disturbance, and there, as with the physicist, mechanical explanation can go no further. Here again we meet the same inscrutable mystery. The underlying will sets in motion at some point in the brain molecular disturbances, the outcome of which is the voluntary act. Given this disturbance, we can trace, more or less clearly, a continuous mechanical sequence of cause and effect. But the bottom fact of motion itself, which to the physicist admits of no interpretation in terms of the rest of his knowledge, now appears as a fact of experience in connection with mind. We are thus obliged to recognize mind as an essential condition of motion, so far as voluntary action affects ourselves.

But these brain disturbances, which thus reveal to us the action of mind, must affect the motions of every particle of matter in the uni-

verse. This is admitted. The conclusion is therefore irresistible, and in solid accord with experience, that mind, even as manifested in ourselves, affects the entire universe. We are thus forced to conclude that the universe is so constructed that in every part and throughout its whole extent mind not only can but does affect it. The very assumption of uniformity, the basis of all science, is a direct corollary of this view. We observe everywhere an invariable sequence of cause and effect, so that, having observed any action in the past, we infer that if the same conditions were to recur the same action would take place. In terms of mind this can mean only unvarying purpose, which, because it is unvarying, must always act the same when the conditions or antecedents are the same. Thus uniform action takes on meaning and significance, and instead of being an ultimate fact is seen to be a necessary consequence.

If now all our experience were confined to observation of ourselves alone, and no other facts or phenomena were observable by us than those which we ourselves furnish, we could not imagine even a possible exception to this conclusion of a universe governed by mind. In such case every action we could observe would be seen to end ultimately in what we could prove beyond doubt to be mind action, and we should consider it as demonstrated that in mind, and mind alone, all motion had its origin. The chasm between mind and its material manifestation would be still as impassable as ever. But this chasm would not be that which confronts the physicist. The origin of motion, which for him has no analogue in his experience, would be explained fully in terms of the rest of our knowledge by referring it to mind.

Our observation, however, is not confined exclusively to ourselves. Everywhere in nature we observe motions which are not due to the action of human volition. What shall we say of such? What can we legitimately conclude, in harmony with what we already know, unless we admit that since some of the phenomena we observe are beyond doubt due to mind, and such mind action undoubtedly affects the entire universe, thereby proving that the universe is of such a nature that throughout its entire extent mind affects it, therefore all the action and motion we observe, whether due to our human volition or not, must likewise be referred to the action of mind?

Does this seem "mere analogy"? Well, it is none the less scientific on that account, and none the less convincing. There seems to be a prevalent belief that scientific truth is based upon what is called "rigid demonstration." Outside of geometry I cannot name a single instance of what can be properly so called, and

even in geometry and mathematics, pure and applied, the conclusions arrived at are always contained in the premises themselves. The complete statement of any problem involves its solution. In no branch of science can demonstration ever yield what the premises do not contain. So-called "rigid demonstration" is only that which does not go outside of the premises, and which produces conviction. It stands simply for a high degree of certainty, and in every case rests upon analogy and cumulative evidence. Every great scientific generalization is an illustration of the use of analogy. The discovery of the law of gravitation itself is a case in point, and it is worthy of note that of this very force—"the very muscle of Omnipotence"—Sir John Herschel has said, "It is but reasonable to regard the force of gravitation as the direct or indirect result of a consciousness or will existing somewhere."

This is precisely the conclusion at which we have just arrived, and it seems so absolutely demanded by the facts, so directly in accord with the rest of our knowledge, that it must carry conviction.

We assert then, as a demonstrated scientific conclusion, that back of all phenomena in nature we are forced to recognize controlling mind. No philosophy of science can safely cut loose from this conclusion. The verification of this conclusion must be found in its power of harmonizing all our knowledge into one consistent whole, of detecting relations otherwise hidden, of unifying our views of nature. Such verification is the highest that any scientific conclusion can claim. Let us point out briefly how satisfactory in this case such verification is found to be.

It seems to me that very much of the scientific philosophy of our day goes astray simply because it endeavors to cut loose from this principle of mind as the basis of all phenomena. We might conceivably, for example, trace clearly every stage in the progress and evolution of the earth and its inhabitants, from the primitive nebulous state to the present time. We might recognize every successive step as the necessary consequent of the antecedent conditions. We might thus, conceivably, exhaust the entire physical content. But yet the real relation of each step to the antecedent conditions would not be even touched. We would have a multitude of facts more or less coherent in groups, it might be, but no unity throughout. No guiding principle upon which to base such unity would be discerned. We should observe a process, but no plan; orderly change, but no purpose; mind and intelligence emerging from matter and force, but no antecedent mind and intelligence. This, indeed,

seems the bias which to-day warps much of our scientific philosophy and builds upon sound facts a top-heavy structure. The assumption seems to be that if we can trace the mechanism, and exhaust the entire physical content, we shall explain everything, and the intellectual and moral content will be necessarily included. The physicist, dealing exclusively with matter and energy, may be quite right in confining his study to the purely physical aspect; but when he proceeds to construct a philosophy of the universe, such a position is an insufficient basis. To deal with phenomena and ignore that which lies back of all phenomena, to attempt to unify all knowledge by disregarding that which gives significance to unity, is to fail at the very start.

THE GAPS IN SPENCER'S SYSTEM.

THE most striking illustration of this bias is furnished by that system of philosophy which to-day has put its stamp upon all scientific thought. Herbert Spencer, in an outline of something like 4500 pages, has made the serious attempt to unify all human knowledge, to comprehend in one principle every event that has ever occurred in the entire universe, to reduce all science and all human knowledge to a single principle—that of the “persistence of force.” The bare statement of the attempt is stupendous, and the execution is the most brilliant and daring philosophic achievement of this or any age. It is an attempt, moreover, in line with the scientific thought of the day. Such unity is the dream of science. Its progress is marked by such striving, from Kepler and Newton to Darwin and Spencer. The attempt has been carried out by the hand of a master, and stamps its author as among the first philosophers of the age.

Now this philosophy of Spencer assumes to be a logical whole. Upon this unity its value as a system depends. Without such unity parts may cohere closely and remain of great value, but it is then only a system in ruins — no longer a monolith, but a series of detached blocks, each perhaps complete, but without bond of union. This, it seems to me, is exactly the case, and it accounts, perhaps, for the poor success of those antagonists who, realizing more or less clearly this weakness, have tried to assault the system in detail. In such a logical whole any lack of unity must be due to the premises. Now it seems to me that the best verification of the principle we have enunciated, viz., that all force is the manifestation of mind, would be obtained by pointing out that unavoidable gaps occur in this system, and that these gaps are completely closed by the admission of our principle. Once admit this principle into the prem-

ises, and, with little change, the system becomes a logical unity, and at the same time the most comprehensive and conclusive argument for theism that science has yet framed.

The system starts with matter and force, and that is all. Mr. Spencer explicitly states that between mind and matter there is a chasm which logic cannot cross. Yet it is precisely this chasm which he is obliged to cross. For, starting with the persistence of force alone, he is obliged somewhere to obtain mind as the outcome.

Here then is the first gap, and it seems to illustrate clearly the bias I have referred to. Only the physical content of “force” is recognized. Of anything back of force there is no mention. Starting, therefore, from a premise which does not include mind, no mind can be logically deduced.

But in the light of our principle, we see at once that “persistence of force” resolves itself into existence of mind, and uniform action is the manifestation of purpose where action is invariable so long as conditions are unchanged. We start thus with mind in our premises, with purpose back of force. The word “force” has thus a deeper content than the physicist recognizes, and the gap is at once closed.

The same holds true as to the introduction of life and consciousness. No life without antecedent life, no consciousness without antecedent consciousness, becomes now a conclusion for which we do not need to imagine some possible exception at some indefinitely remote period of time. With life, mind, intelligence, we start. They are in the premises. They belong there by scientific right, and thus from a purely scientific standpoint the gaps close up in perfect accord with theism.

Again, Mr. Spencer lays it down as a fundamental axiom that the deliverance of our consciousness must ever have for us a validity transcending all else in certainty. This is the highest sanction truth can have, the strongest ground of conviction. Yet the demands of his system force him to a conclusion which this very consciousness denies. For in not recognizing mind as the basis of all natural phenomena, and conceiving of force as divorced from intelligence, he is obliged not only to evolve life, consciousness, and mind from matter, in spite of the chasm between them which he himself admits to be impassable, but he is also forced to deny the freedom of the will. In a universe of matter and unintelligent force only, mind, even if evolved, must be wholly circumscribed by material conditions. But this directly contradicts the deliverance of that consciousness which he himself concedes as supreme. This consciousness of freedom is the common possession of all mankind. No man requires it to be proved, though untold volumes

have been unsuccessfully written to disprove it. When all is said, and argument has been exhausted, we still remain as sure as ever of our freedom, simply upon the irreversible deliverance of our consciousness. This is as it should be in a world based upon mind. The supreme validity of consciousness ought not to rest in such a world upon formal logic, or be a late and difficult attainment of intellectual conviction. It is with us, born in us, part of us; and a system of philosophy which recognizes its supremacy, and is yet logically forced to deny its validity, stands self-condemned.

Moreover, such freedom is the basis not only of our laws and the adjustment of justice between men, but the basis of moral obligation itself, which stands or falls with it. This is the outcome of Mr. Spencer's philosophy that has chiefly and properly aroused opposition, and gives to it its antitheistic character. Upon this point the theologic fire is especially turned. Unfortunately it has been considered necessary in order to capture this issue to batter down the solid ramparts behind which it finds shelter. This is not necessary. Admit our principle into the premises, and the denial of free will, with all its consequences, ceases to be a logical necessity. It then appears as an unnecessary addition, not an essential part of the structure. The pages devoted to the task of denial can be stricken out without injury to the coherence of the whole. In the light of our principle, we need not go outside of our premises to admit freedom. As the end of creation, we share to some extent the attributes of the will which guides creation; to a certain extent we exercise the same power of causality; within certain limits matter obeys our behest, even as all matter is subject to mind, and we possess conscious personality, free will, and causality as partakers and co-workers with mind, through the possession of mind.

Here, then, we have a system which embraces the moral and spiritual as necessarily as the material and physical; and not the "persistence of force," but the invariableness of that which underlies all force, is the solid basis of it all. Without this guiding principle the facts lose coherence and significance,—they mean nothing,—and the entire system falls into fragments. With it meaning and purpose light up every step, and fragments are organically related, and the stupendous work of Spencer, which has been so violently attacked in the interests of theism, becomes the most convincing and comprehensive theistic argument science has ever framed. That it will one day be so regarded, I firmly believe. It will not be the first time in history that such a result has been attained.

I have devoted this much of space to the

establishment of our principle because it is the corner-stone of our argument. It is a principle which to-day hardly needs to be dwelt upon, and I might well have felt justified in assuming it as a conceded fact. The scientific basis of theism is recognized practically by all scientific men, whatever their religious beliefs or their views of a future existence. None occur to mind, and Spencer least of all, who do not recognize in nature the workings of a power back of nature, to which all must be referred. The testimony on this point is united and overwhelming. I have thought it well, however, to give what seems to me the most direct and convincing of the many converging lines of thought which center in this conclusion. We see it to be a fact of science that mind affects matter; that this action of mind is felt through the entire universe; that the universe is thus capable of responding to mind. The only conceivable view in harmony with these facts is that all phenomena are due to mind.

Once recognize mind and purpose back of all material manifestations, and the question of man's future state becomes one upon which science may have much to say. As, without the unifying power of the principle of gravitation, the existence of Neptune would have been but an hypothesis, and could make no claim upon general consent, and since in the light of gravitation observed facts and even apparent contradictions take on mutual relation and lead to conclusions which all must admit; so, in the present case, without our guiding principle facts appear devoid of significance, and immortality becomes but an hypothesis which science cannot definitely settle,—while with it, order, mutual relations, everywhere spring into view, and the hypothesis gives way to certain conviction.

Looking back now over the whole vast scheme of orderly evolution, each step the revelation of purpose directed toward some end, what are we forced to conclude as to man's relation to this purpose and end? We see a vast interplay of force and matter, on a scale far surpassing human comprehension, leading up to consciousness and life. This consciousness and this life appear in strict accord with antecedent conditions. If we could reproduce those conditions, we should expect again the same action. The result we must regard, therefore, as the action of mind guided by unchanging purpose. Then, still in accord with progressive conditions, we observe an orderly evolution of mind, emerging in conscious identity and the conviction of freedom. Then come to the front moral responsibility, spiritual progress, conscience, self-denial, and character, all pointing in the light of purpose to some yet far-distant goal, and thus at last we are forced to re-

gard man as the result of all this mighty process, as designed for some end commensurable with the vast agencies which have called him forth. And now, if all this wondrous development, based upon mind at every step and with purpose attested by uniform action at every stage, which has led steadily up to the final result of self-conscious mind and spirit embodied in material existence, is to end in collapse and utter extinction of the very result attained, what a ridiculous mouse the mighty mountain has brought forth! What a gigantic failure! A process seen clearly to rest upon everlasting purpose, a plan conceived in intelligence and discerned by reason, is found to be but aimless and purposeless activity, which ends by destroying the very object attained. Can such a conclusion stand for one moment the test of reason?

JOHN FISKE'S POSITION.

As Professor Fiske has put the case:

From the first dawning of life we see all things working together toward one mighty goal, the evolution of the most exalted spiritual qualities which characterize humanity. Has all this work been for nothing? Is it all ephemeral, all a bubble that bursts, a vision that fades? On such a view the riddle of the universe becomes a riddle without a meaning. The more thoroughly we comprehend that process of evolution by which things have come to be what they are, the more we are likely to feel that to deny the everlasting persistence of the spiritual element in man is to rob the whole process of meaning. It goes far toward putting us to permanent intellectual confusion, and I do not see that any one has as yet alleged, or is ever likely to allege, a sufficient reason for accepting so dire an alternative. For my own part, therefore, I believe in the immortality of the soul, not in the sense in which I accept the demonstrable truths of science, but as a supreme act of faith in the reasonableness of God's work.

From our point of view we can go further than Professor Fiske. We can hold immortality also a demonstrable truth of science itself, because, as we have seen, such faith is at bottom the soundest basis of demonstration which science can claim. Demonstration, even in science, can go no further than to show the high probability of certain observed relations, and the very existence of any relations at all can be accounted for only on the basis of underlying reason and purpose. Uniformity itself, the very foundation of science and scientific demonstration, is the necessary result of the action of unchanging purpose. To our mind, therefore, Professor Fiske's statement is itself a demonstration, for its rejection implies the contradiction of that principle of divine causation which we have seen to be a sound scien-

tific induction, in accord with all we know and verified by the whole structure of scientific knowledge.

OBJECTIONS TO A BELIEF IN A FUTURE LIFE.

THERE are scientific facts and analogies which are generally regarded as subversive of a belief in a future life. The changes upon these have been rung so often and so persistently that the impression is common that the weight of science is dead against any such belief. Let us examine the most weighty of these objections, and see how in the light of our principle they fade away.

The first and perhaps most obvious is that, as we see both the beginning and the end of the action of man's will power, analogy suggests an end to the will power itself, *i. e.*, to man's soul. To begin implies to end. In other words, the end of an orderly process governed by purpose toward the attainment of that end ceases to exist as soon as the process itself is completed. If a man manufactures an article by an orderly process, as soon as the process is completed the manufactured article, which is the result of the process, disappears! We see the beginning and end of the process; hence the end attained ceases with the process. The objection needs only to be stated in terms of our principle, to disappear. In any process the end only becomes manifest when the process itself ceases. To the will power back of all natural action we can discern neither beginning nor end, and when we observe in the unfolding of that action through a long series of changes, guided at every step by purpose and culminating at last in man, a cessation of the process, the only sound inference is that the end in view has only just been attained.

Again, it is objected that if man is only the last in a series of organic existences, starting from the lowest, and if consciousness has itself been a gradual development, then it seems difficult to suppose any such break in the series as is implied in the passage from mortality to immortality. The point of this objection lies in the assumption that continued existence is a break in the series. If consciousness has already associated itself with matter for some threescore years, is it hard to admit that it may continue so to associate itself in the future? How about the "breaks" involved in the evolution of life and consciousness itself from inorganic matter? Is it more difficult to suppose the continuance of consciousness when once evolved than to conceive of its evolution?

Again, it is urged that consciousness as a condition of every living organism is observed to cease with the dissolution of that organism. The inference is that it cannot exist without

that special organism in which it has once been manifested. It is hard to see the validity of such an inference. We observe consciousness as a condition of many diverse organisms, from microscopic forms to man, not restricted to any one special form. We find it surviving constant changes in the material of each organism, amounting to a periodical complete change of the material constituents. In the light of these facts and of our principle, we see that since conscious mind is at the bottom of all material manifestations, it is manifestly inadmissible to make its existence depend upon the dissolution of any special and constantly changing form.

Again, it has been alleged that there is no sentiment or emotion manifested by man that is not traceable in some degree, however slight, in animals below man, and immortality of the personal consciousness for one would imply immortality for all. "There would seem to be no reason," says a well-known naturalist, "why certain early protoplasm should have been left out in the cold, and hence there should be some chance for every toadstool and thistle."

Immortality, it may be replied, is not claimed for consciousness or mere power of sensation, but for self-consciousness, for self-determination, for personality, for conscious identity. Consciousness such as this is not the property of all, and is not possessed by every toadstool and thistle. Not the survival of consciousness but the continuance of personality and conscious identity is the point at issue. Still, it may be urged that such conscious identity may be claimed for many animals besides man, and the objection, though modified to exclude toadstools and thistles, may still apply far down the scale of life. Even this claim might be disputed. Conscious identity is an abstract conception, and animals below man have not yet been proved capable of abstract thought. Still, waiving this point also, our principle easily refutes the objection. Once admit meaning and purpose in the universe, and the objection is answered. From this point of view the statement of Lotze is unassailable, "that every created being will continue whose continuance belongs to the meaning of the world, and so long as it does so belong; whilst every one will pass away whose reality is justified only in a transitory phase of the world's course."

From this point of view there is much in nature very significant in its bearing on the point at issue. Admitting an orderly development from inorganic to organic, through plants and animals to man; admitting that the sentiments and emotions of man are traceable and foreshadowed in lower forms of life, let us turn our faces toward the future instead of the past, and, in the light of reason and purpose running

through the whole process, ask, not whence and how these things have come, but whither do they point?

When we do this we observe at once one very significant fact which marks man off from all the lower animals, and stamps him unmistakably as the end of the physical process. This fact, which has been dwelt upon by both Dr. Martineau and Professor Fiske, is the vast disproportion which exists in him alone between his faculties and his physical needs. Everywhere else in nature we find perfect adjustment between organ and function, of means to ends, of faculties and physical requirements. Indeed, the theory of evolution itself demands that such shall be the case. The animal produces new organs, by modifications of those already existing, only in accordance with his needs and the pressure of environment, and thus keeps in perfect adjustment with that environment, but in the very nature of the case can never rise beyond it. Development follows need, and never outruns it. This is another proof of the action of mind in molding matter. Mind lies back of change. To eat, avoid enemies, live and multiply, sums up the whole of animal life. Not an instinct, propensity, habit, appetite, or passion is observed which does not exist solely for these ends. Should such appear, they must at once be lost, for the animal has no need for it. He cannot accumulate a store of useless mentality. We see that the dissolution of such an organism means that it has served its purpose. The statement of Lotze applies at once.

THE ARGUMENTS IN FAVOR.

How different is the case with man! Where is this exact adjustment, and what is the meaning of its loss? Appetite, passions, instincts he shares with the animals, gets them from the animals if you will, but satisfy them all, leave him not a physical need unsatisfied, nor a bodily want unsupplied, and only then does he really *begin* to live. The energy for such needs and wants is a handicap on his true development. He strives incessantly to get them out of his way with the least effort possible that he may gain room for spiritual ends. These are his pressing, impelling powers. His environment is spiritual as well as physical. What is this spiritual environment for? For what is it fitting him? He must needs know the secrets of nature, pry into the formation of far-distant worlds, and tell their courses and periods. The worlds of large and small, of time and space, open before him. He interprets by reason the workings of reason everywhere about him, allies himself with his fellows in social bonds so strong that the very animal instincts, desires,

appetites, and passions which are the means of development for the lower animals are by him opposed, subjugated, ignored even, for higher ends. He is impatient of them, feels them as restraints, and beats against them as the imprisoned bird against his barriers. He alone can treat this physical life as dross, and lightly toss it away for the sake of spiritual truths. He alone has it in his power to bring will into accord with right reason, to coöperate as an active agency with the supreme will, and he alone can build up character by voluntary action, in the light of reason and in defiance of his animal inheritance. He claims immortality as his by the divine heritage of hope. He is the hopping animal.

Toadstool and thistle indeed! What does this enormous endowment in excess of physical needs imply? It must mean something. This cannot be without import. If in a world of purpose and intelligent design science, from a consideration of man's physical similarity with the lower animals, can unfold his past, can she not with equal certainty, from a consideration of his dissimilarity, prophesy his future? Does the revelation of design in nature hold good only in the backward view? Shall science tell us of man's descent and have nothing to say of his ascent? Man is not fitted to this world. He is hugely over-fitted. He has broken loose from physical environment, and has passed up, through, and beyond it. "From the moment," says Wallace, "when the first skin was used as a covering, . . . the first seed sown, or root planted, a grand revolution was begun in nature,—a revolution which in all the previous ages of the world had no parallel; for a being had arisen who was no longer necessarily subject to change with the changing universe, a being who was in some degree superior to nature, inasmuch as he knew how to control and regulate his action, and could keep himself in harmony with her, not by a change of body but by an advance of mind." And what an advance! His environment is no longer physical, it is spiritual. The physical environment has served its purpose and produced him. Has this new environment no purpose, and is it fitting him for no ulterior end? Reason, intellect, awe, wonder, the sense of beauty—do these things in man merely feed the body? Conscience—what does it mean, this scourge of disobedience, which we find to be sharpest and most imperative on the first offense, but which becomes blunted and dies out through repeated action? This is no mere punishment. As a punishment it is a failure—precisely the reverse of what it should be. As a punishment it should be light at first, but heaviest under repeated disobedience. All physical suffering and penalty act thus. Why should the reverse

hold true for the soul? This is not penalty, not *post*-, but *pre*-monition, not a punishment for the past, but a warning of the future, and it acts most vigorously precisely when most effective for this purpose, ceases when this purpose is useless, and flings man back to the stern tutelage of outraged law.

Justice demands immortality. The unequal distribution of happiness, disasters mingled with pleasures, misery side by side with happiness, the hard, unequal lot of many, bearing the heavy burden not only of their own but of others' transgression—the sins of the father visited upon the children, ignorant transgression punished with merciless severity, lifelong pain, and suffering, and misery of soul and body incurred through no conscious fault—is all this for some ephemeral and far-off benefit to a short-lived race, drifting onward to final extinction on a cooling planet? And shall there be no compensation to the individual? No hereafter where the patient sufferers of earth's injustice and nature's pitiless reprisals may look back through the vista of years and see unfolded before their glad eyes a vast plan of wisdom infinite, of righteous justice, of goodness and mercy; may rejoice in sufferings past, as they trace the influence of their suffering lives, and begin to understand at last their share in the wondrous plan, and look forward with glowing anticipation to continued coöperation and loving service!

Or take love. Is there no difference in this as manifested in man and the lower animals? Does it count now for the individual alone, or even chiefly? An impelling power which puts self in the background and brings to the front self-sacrifice, self-denial, duty; smoothes the rugged path, and makes desirable action which would otherwise be intolerable; which attaches man by every fiber of his heart to others as though in very assurance of unbroken fellowship hereafter; which implants in the deepest depths of his being the unquenchable hope of immortality—is there no meaning in this? "It is," says Dr. Munger, "related of an Arab chief, whose laws forbade the rearing of his female offspring, that the only tears he ever shed were when his daughter brushed the dust from his beard as he buried her in a living grave. But where are the tears of God, as he thrusts back into eternal stillness the hands stretched out to him in dying faith? If death ends life, what is this world but an ever-yawning grave into which the loving God buries his children with hopeless sorrow?" Shall men have the "soul of a seraph and the fate of an ephemera"? Shall love and adoration rise for countless ages to a God who has no reply? Cannot man demand immortality by the "inexorable logic of love"?

Or take man's intellectual advance. Why should he read the work of design everywhere about him; why this insatiable thirst to *know*; why the revelation of power and wisdom and design and love in and about him, till, offspring of earth, he lifts to heaven adoring hands and names "Our Father"; why should he only just begin to learn the capacities of his being, the nobleness of his intellect, the infinitude of the universe, and just begin to appreciate what he must reluctantly relinquish, as his longing eyes close in everlasting death? Is not the reluctance itself a premonition, the very longing a promise? And what a waste is here! "It takes all mankind to make a man, and each man when he dies takes a whole earth away with him." "It is to the honor of human nature, and what can be said of no other creature, that the best fruits of all together suffice for no more than to make each one what he may be." Or take the great fact of death itself. Everywhere in nature we find death to be the first step of further progress, the invariable antecedent of higher life, the prelude to entrance to another state. Each stage is the heir of all the past. Can it be that man is the sole exception, and that for him alone of all created beings these facts have no significance? Everywhere in nature we see the workings of a process keeping every step gained and steadily rising to the next, always taking over into the next stage all that has accrued in the past, transforming inorganic into organic, tending then upward to higher development of life, then passing into mind, ever subordinating material to mind, passing on into the spiritual realm, and culminating in a self-conscious individuality. With the birth of this individuality man enters upon the scene as a new creation. And now shall the next stage for that being prove like all the preceding, the inheritor of all the past; shall we take over into the next stage all that has accrued in this, or shall man prove the sole exception, and in the next stage of his life-history leave behind him the culmination of it all? Looking backward we can see each gain foreshadowed in a previous gain.

Does self-conscious mind, the last gain of all, foretell no future?

These are facts of nature and science. Scientific thought cannot ignore them. Their interpretation is as legitimate, as necessary, as conclusive as that of the rocks and stars. In the light of purpose they are as decisive of man's future as the structure of his physical organism is of his past. If the record of the past is recorded in his skeleton, his present endowment of soul, mind, and body is prophetic of his future.

Here, then, man stands as the terminal bud of the tree of life, the end of a mighty process,

with a meaning which interprets the process, but which cannot be identified with it. "In the beginning psychical life was but an appendage of the body, in the end the body is the vehicle of the soul." In the light of purpose, this means something. "If we can imagine," says Professor Fiske, "a future time when warfare and crime shall have been done away with forever, when disease shall have been for the most part curbed, and when every human being by moderate labor can procure ample food and shelter, we can also see that in such a state of things the work of civilization would be by no means completed. In ministering to human happiness in countless ways, through the pursuit of purely spiritual ends, in enriching and diversifying life to the utmost, there would still be almost limitless work to be done. I believe that such a time will come for weary and suffering mankind. Such a faith is inspiring. It sustains in the work of life, when one would otherwise lose heart."

It is indeed a noble hope and faith, and the process means this in truth, must mean this at least. But does it mean no more than this? Such an outcome is grand, but ephemeral. Earthly civilization, no matter how complete, must one day pass away. The earth, science tells us, is but a cooling cinder, and the time must come when it will be no longer fit for human habitation. The tribes of men on its surface are but as fleeting shadows. Such an outcome is less durable in the scale of the vast process than the fabric of a dream, and its very grandeur only emphasizes its failure. Even fully developed humanity is only the prelude to extinction. Some end other than this, some faith higher than this, must justify our belief in the "reasonableness of God's work."

CONCLUSION.

THERE can be but one conclusion in terms of the rest of our knowledge. Happiness, enjoyment, the enrichment of life, these are pleasant things, but this earth, as science reads its future, cannot be their lasting abode. They are a means but not an end. They have their purpose in the scheme, and work toward the final aim. Misery, want, warfare, disease, crime, sin, sorrow — these we call evil things. We even question why such things should be, and call their existence a mystery. But these, too, are means to the same end, a part of the same process, neither more nor less mysterious than all the rest, and must play their part also in the attainment of the final aim. This aim may well be happiness in the end, but that end is not here. Here the road is *designedly* thorny, and passed with suffering. Such happiness as we

find here is ever and always the outcome of intelligent voluntary action in obedience to the guiding will. It is well and right to strive for happiness here, because its attainment is linked to righteousness. It is thus an incentive to impel us on, at once a motive power and a promise of the future. It has no meaning divorced from the future. Here is surely no mystery. Suffering we find ever and always the result of violation of law, whether wilful or ignorant. It is in our power to diminish it. It is right and proper thus to strive. It is both an incentive to such effort and a scourge to disobedience. It works in the same direction as happiness, and to the same end. Happiness itself loses meaning without it. Why should we seek to make a special mystery of this, as though man had an inalienable right to happiness apart from voluntary right action?

Could we not then have been set in a world of happiness perennial, free from sorrow, care, suffering, and sin, where disease and crime should be unknown, and man could live in blissful ease, a stranger to pain? And what then? Beginning with such a stage, man would have no future. Then, indeed, the reason for his existence would cease with his organism. Death itself should be unknown in such a world, or else it must be a world without human affection. In such a world there is no future outlook, no progress, no discipline, no self-development. In such a world freedom of will would have no significance, voluntary action no moral consequence, choice would be meaningless, obedience a figment, character an impossibility. Why should such an automaton live forever? Why should such a colorless, fiberless ghost and nonentity live at all? Without happiness as the reward of conscious striving, without suffering as the punishment of disobedience, without conscience, duty, self-development, such an Eden would be stripped of all meaning, and would stultify the power that produced it. The millennium of Professor Fiske may well be the end, but it must be the result of our coöperation, an attainment, not a gift falling to heedless hands. We must take into it those self-developed qualities of soul and spirit, which it alone could not produce, but which, once produced, are eternal, and the previous existence of which alone can render such a state desirable. These qualities we must ourselves attain; for this reason we are here, to attain selfhood. For this we have the gift of conscious personality, the consciousness of freedom, the ability to choose, the responsibility of choice. Here we find the true meaning of this our life, and begin to understand the mystery of pain and sin. Intelligence is ours, to guide but not to govern us. We must govern ourselves. We must voluntarily conform to the supreme will,

and not find ourselves without effort in accord with it. Our intelligence itself we must attain to; it is not furnished ready made. We must learn by pleasure to pursue the right, by suffering to avoid the wrong. Violations of law due to the ignorance of one generation become the voluntary transgression of the next, and sin appears; as the result of ignorance, suffering, and as the result of knowledge, wilful wrong action and sin. The physical struggle is now transferred to the moral and spiritual side, and through sin itself the struggle with self begins. Mastery of self can be attained only in a world where temptation and sin are possible, where voluntary disobedience is the outcome of ignorant transgression. These are necessary to the end; not merely allowed, but designed. The purpose of such a world is plain to read. It means that not happiness here is the end for which we are to strive. That is a means to help us, to encourage us, to lead us on. Not the avoidance of pain is the end. That also is a means to warn us, to guide us, if needs be to compel us. But the great end which science itself is forced to recognize is the mastery of self through the struggle with sin and temptation, and the formation of a personality—of a character self-attained, of a spiritual influence in the midst of a universe governed by such influences which, disciplined by pain and trial, strengthened by the sweet uses of adversity, guided by reason and knowledge, voluntarily brought into accord with supreme will through the stress of sin itself—is thus made capable of coöperation with that will both here and hereafter. This is the significance of the process we observe. This alone harmonizes all the facts. For such a personality there must be a future. Such a personality belongs to the meaning of the universe. Not, therefore, the production of automatons who may pass a few years of blissful irresponsible ease and then cease to be; nor the development from lower forms of an animal who can for a time explore nature, increase in power and civilization, develop a higher nature, stretch forth hands of entreaty to an unseen God, and then, just as the universe opens to his gaze, when higher possibilities and hopes and yearnings begin to dawn, when he has grown completely out of his physical environment, and with an endowment far beyond his needs catches glimpses of glories he can never share, and with heart filled with loving longings that can never be satisfied, sinks into a hopeless grave—such is not the end indicated by the facts. Such an end is worse than futile. It is a cruel mockery.

But the development of a conscious inde-feasible personality,

One soul against the flesh of all mankind;

of a spiritual energy in accord with eternal purpose, capable of coöperation and fit tool for higher things — this is an end which alone satisfies reason, science, revelation, faith, and hope. This alone is commensurate with the whole mighty process. The attainment of such a personality we begin here. So surely as we begin it has our true life begun, and opportunity must be afforded to complete the work — else is the whole process a failure. And this personality, science tells us as certainly as she can tell us anything, is not born to die.

Augustus Jay DuBois.

SYMPATHY.

BY us she waits, unglorified and meek,
 Forgotten in the blessings that she brings.
 We do not deem her eyes conceal the springs
 Of all the streams of gladness that we seek.
 Until she wills kind words we cannot speak,
 Lacking her hint the angels fold their wings.
 How soft her touch, and how for feeblest things
 The smiles and tears run races on her cheek!
 Without her counsel Love might go astray,
 Or Charity itself would cast a chill,
 And Happiness on earth be but a name.
 Her golden key unlocks the poet's way,
 Else Genius, nathless all his mighty will,
 Might stumble blindly at the gate of Fame.

Charles H. Crandall.



FROST-FLOWERS.

FROST upon my window-pane,
 Delicate flowers in frost —
 Thus the old dreams come again,
 Dreams of the loved and lost.

Not the buds of early spring,
 Not from the fields of June,
 Fruit of ghostly blossoming,
 Under the winter moon.

Fern and lily pale and sere,
 Drawn by an airy hand,
 Etched by night this time o' year,
 Blossoms from No-man's-land.

Thus, mayhap, long after death,
 Strangely as flowers in frost,
 Thoughts of us who still draw breath
 Come to the loved and lost.

W. P. Foster.