

# Theology on the Web.org.uk

*Making Biblical Scholarship Accessible*

This document was supplied for free educational purposes. Unless it is in the public domain, it may not be sold for profit or hosted on a webserver without the permission of the copyright holder.

If you find it of help to you and would like to support the ministry of Theology on the Web, please consider using the links below:



Buy me a coffee

<https://www.buymeacoffee.com/theology>



PATREON

<https://patreon.com/theologyontheweb>

**PayPal**

<https://paypal.me/robbradshaw>

---

A table of contents for *Journal of the Transactions of the Victoria Institute* can be found here:

[https://biblicalstudies.org.uk/articles\\_jtvi-01.php](https://biblicalstudies.org.uk/articles_jtvi-01.php)

JOURNAL OF  
THE TRANSACTIONS  
OF  
The Victoria Institute,  
OR,  
Philosophical Society of Great Britain.

---

EDITED BY THE HONORARY SECRETARY.

---

VOL. IX.



LONDON:

(Published for the Institute)

HARDWICKE & BOGUE, 192, PICCADILLY, W.

1876.

---

ALL RIGHTS RESERVED.

## ORDINARY MEETING, MAY 18, 1874.

J. ELIOT HOWARD, Esq., F.R.S., IN THE CHAIR.

The Minutes of the last Meeting were read and confirmed, and the following elections were announced :—

MEMBER :—Rev. F. M. Oxenham, M.A., Oxon, 95, St. George's Road.

Also the presentation of the following works to the Library :—

- “Journal of the Royal United Service Institution.” Last part, vol. xviii. *From the Institute.*
- “Alleged Difficulties in the Teaching of the New Testament.” By Rev. Prebendary Row. *From the Author.*
- “Commentary on the Bible,” 6 vols. By Rev. C. Girdlestone. *Ditto.*
- “Flint Implements.” By J. Parker, Esq. *Ditto.*
- “Hyena Cave of Wookey Hole.” By the same. *Ditto.*
- “History of Oxford in the Ninth and Eleventh Centuries.” By the same. *Ditto.*
- “Hollingsworth” (volume and pamphlet). By Dr. Sexton. *Ditto.*

The following paper was then read for the author, who is resident in America, by the Rev. Prebendary Row, M.A.

**THE FINAL CAUSE AS PRINCIPLE OF COGNITION AND PRINCIPLE IN NATURE.** By Professor G. S. MORRIS, M.A., Michigan University, United States.

IN more than one of the papers presented at the meetings of this Institute, the notion of final cause, or of design in nature, has been dwelt upon and defended. There can be no excuse for returning to the subject, except the desire to have included in the records of the Institute a paper, which shall attempt still more specifically, and, perhaps, from a point of view not previously chosen, to establish the definite presence of the idea in the world of reality, and its necessity as a principle of our thought about nature.

The late Professor Trendelenburg, of Berlin, in an essay on the *Ultimate Ground of Distinction among Philosophical Systems*, discriminates as follows:—"In all systems of philosophy, either force is conceived as superior to thought, so that thought is not primary, but rather the result, product, and accident of blind forces; or thought is made superior to force, so that blind force alone is not primary, but is the outcome of thought; or, finally, thought and force are represented as at bottom the same, and only distinguished in human opinion." (*Historische Beiträge zur Philosophie*, vol. ii. 1855, p. 10.) The disjunction seems exhaustive, and there can be no doubt under which member of it we are to range ourselves. Not the first alternative, which is espoused by materialism, nor the third, which corresponds to Spinozism, but the second covers the ground of our Christian idealism. We hold that primacy in rank and in power belongs in this universe to thought, or intelligence. This is our philosophical attitude, which becomes further differentiated and illuminated by the addition to it of Christian faith.

The scientific defence of this position is accomplished partly by metaphysical argumentation, and partly by analysis of the results of physical and psychological observation. What is true in thought, we claim, can not be false in nature, but must find in the world of natural reality its confirmation and realization. If the ideal controls the real, if intelligence governs force, there must exist in the world of real forces indications of this control and government.

In the acquisition of knowledge we proceed from the known to the unknown, from the sign to the thing signified, and (quite generally) from the part to the whole. Moreover, if knowledge is for us possible, it is, of course, so only under the conditions inherent in our nature and in the nature of real things. It is because man is a part of nature, that he may *à priori* assume a fundamental likeness or other relation between what is essential in his own nature and what is essential in the world around him. The physical (phenomenal) identity of the human frame with the natural elements is admitted and established. Analogy would lead us to suppose that what is specially characteristic of man—the developed reason and moral nature—is not a wholly incommensurable, isolated quality in him, but that it has its analogue or correlate in nature—or, that there exists in the latter something so akin to man (as Plato would say) that only the reason of man, and not the senses, can apprehend it. Analogy leads us to look for the ideal in nature.

And, as matter of fact, we do find, or think we find, in

nature, in abundance, that which can only be ideally apprehended. Of this description, above all, is apparently space itself, which is a specimen, on the largest scale and in a most significant way, of a realized abstraction. In the same category we are disposed also to class all concrete relations, as of order in succession and co-existence, symmetry, and the like. These, we assume, can not be said to be introduced into nature by the intelligence of the observer, for they would exist—such is our necessary conviction—even though no rational being, such as man, were in existence to observe them. What was *à priori* anticipated seems thus to be *à posteriori* confirmed, in so far at least as it regards what may be termed the passive existence of the ideal in the real. Our present, immediate concern is to see whether the ideal—thought—is also actively present in the real, as a principle underlying and controlling it—more especially in the form of final cause.

The question is a metaphysical one, in so far as it relates to our judgment of the real constitutive nature of the so-called “real” objects in the world, or of the world in general; and it is a logical one, or a question belonging to the theory of cognition, in so far as it is connected with the complex of propositions which we are compelled to hold as true regarding the conditions and forms of human knowledge. The answer to the metaphysical question will depend upon the answer to the logical one, to which latter, therefore, we may at once address ourselves, by way of introduction to the former.

Human knowledge is, conceivably, either of the real or of the phenomenal. It is also direct or indirect. These two divisions are not coincident, and each covers an important distinction.

As to the first: the distinction between real and phenomenal needs to be carefully stated, by definition of the terms employed, since it is by no means an obviously fundamental one. All that *is, appears*; strictly speaking, we know only how the object known appears to us, and in this sense it may be said that all our knowledge is of the phenomenal. (And this suggests the still more profound sense in which it may be said that all our knowledge rests in the last analysis on faith. *Credo, ut intelligam.*) But the (conscious or unconscious) employment of the appropriate logical processes leads us nevertheless to distinguish between the real and the phenomenal, and to recognize in the distinction the expression of a fundamental verity. By knowledge of the real I mean knowledge of the essential, constitutive nature of the object of knowledge, of the true, noumenal cause, or metaphysical

knowledge. All other knowledge relates to what I understand by the phenomenal, hence to what is non-essential, not constitutive, and to effects or phenomenal causes, rather than true causes.

By direct knowledge, I mean such as is furnished immediately in consciousness; the knowledge of our own being and of its attributes, and of all our conscious states; by indirect, all other.

I omit, for the present, the query whether or to what extent all knowledge of the real is direct; a part of it, at least, evidently is such. But not all direct knowledge is of the real; for the definite, changing contents of consciousness, which we know directly, are for the most part purely phenomenal.

The reflection confronts us at the outset, that, in assuming the possession by man of knowledge of the real, we run counter to the dicta and arguments of noted philosophers in ancient and modern times. This fact of itself need not, however, deter us from making the assumption, since, for that matter, philosophers equally distinguished have upheld our doctrine. Nor will the conditions of this discussion permit more than a passing reference to the especial positions of opponents. Kant's attempt to establish a strict limitation of knowledge to the phenomenal was, fundamentally speaking, a failure. For his attempted demonstration of the exclusively subjective nature of the "forms" of sensibility and of the understanding, and of the ideas of the reason, has been shown to be defective, and hence inconclusive;\* he himself, in practice, did not observe the limitation for which he contended (he regarded "things-in-themselves" as *causing* in us impressions whence we could infer at least the existence of the former, and thus contradicted himself by applying to the transcendental realm of true being the category of causality, which he affirmed to belong merely to subjective, relative, human thought); and his doctrine may be said to have been disproved by a decree of history, since his immediate successors, professing (notably in the case of Fichte) to carry out to its legitimate consequences his own teaching, landed at the opposite extreme of pretended absolute knowledge. As for English philosophers of the empirical school, who have denied of man that he is equal to the cognition of anything that is real (in the sense of this term indicated above), the fundamental principle, upon which they proceed in their arguments, it is competent for us to pronounce an imperfect generalization and a principle which,

---

\* See, for example, Trendelenburg's *Logische Untersuchungen*, vol. i. chap. 7, and *Histor. Beiträge zur Philosophie*, vol. iii. art. vii.

carried out to its logical consequences, leads to the absurd. Consider, for example, the words of John Stuart Mill, in book i. ch. 3, of his *Logic*, "Everything is a feeling of which the mind is conscious." What is true in this assertion is what is above admitted, namely, that all being, so far as known by us, *appears* to us, *i.e.*, is known in the forms, under the conditions, by the means, which are peculiar to human cognition (truismatic as this may sound). I do not inquire whether it be a correct use of terms to identify consciousness with feeling—virtually to define the one by the other. But the whole and only truth of the expression cited (as far as it concerns the point immediately under consideration) is, that all our knowledge of the real must, to be possessed by us, be a part of our individual consciousness. But to affirm that this is the whole truth of the case, is to identify the part with the whole, the aspect with that of which we perceive the aspect, or (better) the form with the content, and the appearance with that which appears. It is true that our metaphysical knowledge (knowledge of the "real") does not come to us through the medium of demonstration. Like all that is ultimate, it is simply apprehended, is acquired and recognized directly, and can be confirmed by indirect demonstration alone. But the testimony of consciousness to its reality is ever present, and furnishes the one conclusive answer and corrective to statements like that now under criticism. Hume showed that the logical issue of such a principle is philosophical scepticism; and it is substantially this to which Mr. Mill himself is led. (See his *Examination of the Philosophy of Sir William Hamilton*, chs. xi. and xii.) But the considerations, by which philosophical scepticism is shown to be absurd, are too familiar to need to be re-stated.

All knowledge consisting in ideas, it is a work of both psychological and metaphysical analysis to answer (in the second place) the metaphysical question as to the ideas which represent or are the medium of knowledge of the real, on the one hand, and of the phenomenal, on the other; as also to show what knowledge is direct, and what indirect. In the case of indirect knowledge, we are obliged to resort for confirmation to logical criteria of truth, or to processes (observation and experiment) guided by logical rules.

Pre-eminently, and in the first place, our knowledge of reality is knowledge of ourselves, furnished in direct consciousness. A long line of thinkers, among whose names are included the illustrious ones of St. Augustine and Descartes, have called attention to our direct consciousness of our own existence, as providing the immovable starting-point and foundation for all true (ontological) knowledge. Differences

have existed and been expressed among philosophers as to the interpretation of consciousness, but none have been able to call in doubt its reality, or the truth of the witness which it bears to the existence of something which is called *I*. What the *I* is must be learned from consciousness, which teaches us to consider it as a self-conscious, feeling, thinking, willing force.

It is to be admitted that the representatives of positive science tend, with increasing unanimity, to reject the conception of force, as an hypostatized abstraction, to which no physical reality corresponds; and it is true that able philosophical analysts (Trendelenburg, for one) are unable to find in it anything but motion. The truth of these conclusions, from the stand-point of physics, will at a later stage in this discussion, be formally admitted; and if, in here using the term force, I employ a term, burdened with what might be falsely suggestive of physical associations, it is for the want of a better one to express what I read in consciousness, namely, the efficient agency of the will.

So much direct knowledge of the real, then, is to be claimed, viz. the knowledge of our own ideal existence and efficient agency. The former is perforce universally admitted, in some form; the latter has been questioned. But the testimony of consciousness on this point is apparently so explicit, and the interpretation placed upon it by the general consent of mankind has been so nearly uniform (not to speak of the accordant opinions of noted thinkers), that the burden of proof seems clearly to lie with those who deny free efficient agency to man. Their arguments are directed, generally, against what is termed the freedom of the will. It is enough to remark here that these arguments are mostly of the kind, of which men of science disapprove: they are deductive inferences from apparent or real generalizations, by which it is attempted to decide what must be true in the particular. By an *inductive* appeal to our own consciousness and to that of others—*i.e.* by direct personal observation and experience—we arrive at the assertion of freedom. The denier of freedom, on the contrary, proceeds from some such general truth as that of *law* in human actions, whence he *deduces* a conclusion in conflict with our induction. But all questions of fact must be settled, when this is possible, inductively; such is the dictum of scientific practice and of correct logical theory. Hence we need not longer concern ourselves with a theory contrary to inductively established fact.

All other knowledge of the real than that which pertains to ourselves is indirect and analogical. The basis of analogy is that direct and most certain knowledge which we have of our-

selves as ideal existences. We can advance in our attempts to cognize the real which is not ourselves, only by the way of analogy, because of the unknown we can frame no conception, except in terms of the known. The results of our attempts, being inferential, will command an assent less absolute than that which is due to truths of which consciousness is the immediate voucher.

By analogy we form for ourselves most easily conceptions of the ideal nature of organized, living beings, other than ourselves. Thus, without difficulty, we represent to ourselves in imagination the inward life of our fellow-men, and then, by a process of de-idealization, that of inferior animals. By a reverse process of idealization we conceive of intelligent existence superior to ourselves. (Cf., in Ueberweg's *History of Philosophy*, vol. ii., the section on Beneke, more especially pp. 284, 285, and Ueberweg's *Logic*, § 42.) So, then, we know our own ideal being directly, and we infer that of other beings, more or less like ourselves, from signs, the meaning of which no one calls in question. And this is the only kind of being of which we can truly be said to have intrinsic knowledge.

Besides, ideal, conscious existence, as above set forth, science has been in the habit of treating of the universe as containing "matter" and physical "force." To these materialism reduces the world, and it treats the two as inseparable. They belong for us primarily to the province of the phenomenal. They are, in the first place, ideas; and whatever reality or being corresponds to them can be known only through a transference to them (positively or negatively) of the analogy of our own ideal being.

First, as to matter. In the definition of this conception we are compelled to use terms which imply force, such as impenetrability, power of resistance. It is only these terms which throw the least semblance of light into our idea of matter; extension, form, and the like, are expressions which say nothing on the subject of intrinsic, constitutive nature. Accordingly, philosophers and scientists have sought to identify matter with force or motion, but without success. Professor Trendelenburg, notably, who made of motion the hypothetical principle of nature and of cognition for the physical realm, had to confess his inability to reduce matter to motion. Nor will inductive science admit the theory that matter (atoms) consists simply of forces concentrated in a mathematical point. Says Professor F. Schneider, in Meyer's *Jahrbuch* for 1873, p. 583: "The theory that the atoms have no extension in space and are merely centres of force . . . is, in view of the

results of investigation in various provinces of molecular physics, no longer tenable," &c. This view, I take it, is tacitly assumed in all expositions of molecular physics, as, for example, in Professor Clerk-Maxwell's paper on the *Theory of Molecules*, read before the British Association at Bradford, in 1873. Matter, we are then apparently obliged to admit, is really existing (if there exists an external world—which we may assume to be the case), but of its real, substantive nature we have no knowledge. For Plato, it was irrational and, in itself, unreal; for Aristotle merely potential; for Descartes it was extension; for Kant (at the age of twenty years) "working force," or (at a later period) simply a "necessary formula of thought"; while Hegel treated it as the "produce of place and motion," and the "means for the self-realization of spirit"; Helmholtz declares it an abstraction, and Huxley a "form of consciousness." Evidently none of these men knew or knows what matter intrinsically is; and Du Bois-Reymond says that we never can know it (*Ueber die Grenzen des Naturerkenntens*, Leipzig, 1872, p. 34). And this is true, because matter cannot be conceived by us in sufficiently positive terms; we can only think of it (*except in so far as we attribute to it "forces," our idea of which is formed after the analogy of what we know in our own conscious experience*) as not possessing this, that, and the other attribute of the only kind of existence of which we have direct knowledge, namely, of ideal existence. As to force, in the second place, it too is merely an abstraction (Helmholtz, Ueberweg, and others), or a "form of consciousness" (Huxley), the formation of the idea being "a sort of rhetorical artifice of the human brain which resorts to figure when its ideas are too vague for clear expression" (Du Bois-Reymond), unless it be in an important measure identical with that of which we believe ourselves conscious in our voluntary actions.

Matter and "physical" force are so little known, or rather are so absolutely unknown (apart from the analogy of ideal force), that, without claiming or seeking to arrive at the *what* (the substantive nature) of things, physical science seeks only to ascertain the laws and order of phenomena, which latter it regards with reason as phenomena ("modes") of motion. ("Under the influence of this idea [the idea of the conservation of energy], we see in our time physics transformed and established as, in the strictest sense of the term, doctrine of motion"; see Dr. H. Böhm, *Geschichte der Entwicklung der naturwissenschaftlichen Weltanschauung in Deutschland*, Gotha, 1872; cf. also Emil du Bois-Reymond, *Ueber die Grenzen des Naturerkenntens*, pp. 2 et seq., Leipzig, 1872.) The

question, then, as to the real, substantial nature and laws of action of the substrate underlying phenomena, is left open to metaphysical speculation, which alone can determine what views may with greatest probability be held upon the subject.

If, now, true (physical) science deals only with phenomena, and neither can nor will declare aught as to the real nature and (metaphysical) modes of operation of their causes, he who would form an opinion on the latter point has but to take the results of positive science and reason freely backwards from them, as from signs, to that which they signify. Science, obviously, can neither interpose obstacle nor objection so long as the results of reasoning (speculation) are not given out as results of so-called "exact" (*i.e.* mechanical) science. And if, in prosecuting our reasoning, we proceed by the way of analogy, arguing, as far as there seems ground for it, from the known to the unknown, we shall obviously be simply following the usual method of scientific inference.

The fact is worthy of attention at this point, that, if any representatives of science lend their countenance to philosophical materialism, they favour, in so doing, a *metaphysical* theory. Clearly, the doctrine that nature is a complex of unconscious forces is a metaphysical doctrine—a theory as to the intrinsic, ontological nature of things, a theory of causation, or of that which science asserts its own inability to cognize.

Before using the full liberty which science leaves us, of speculating as to the nature and principle of operation of the causes of physical phenomena, let us revert for a moment more particularly to the specified topic of this essay. The title chosen requires us to set forth the final cause as a principle of cognition and of nature. To show that it is a natural principle, we must show that it is a constitutive principle (or element) in cognition. The opposite of *constitutive*, as here employed, is *regulative*. To illustrate: the critical philosophy of Germany (Kant) affirms that the ideas of a soul, of human freedom, and of God, are simply "regulative" ideas, suggesting what are subjectively necessary points of view from which to judge of things, but to which no reality or objective truth can be known to correspond. If it could be shown to the satisfaction of an adherent of that philosophy that these ideas have an objective worth or significance, he would admit that they are constitutive elements of human knowledge, or, in simpler phraseology, that, in having these ideas, man has through them true knowledge of reality. This latter is what is claimed for the notion of final cause, as applied in the cognition of nature.

What "final causation" is, is familiarly known to us all through our consciousness of our own modes of intelligent

action; for it is a fundamental mark of such action. Final causation, action in view of an end, the idea of the end controlling the action—this is, in its most obvious expression that peculiarity of our nature in virtue of which we are termed *rational* animals. Rationality—rational action—is not known without the aid of the conception of final cause. This requires no demonstration. It follows that the conception is a *true principle of cognition—a true and trustworthy element of knowledge—for the sphere of rational life, i.e. for the only sphere of which we have direct knowledge.*

The marks of the action of final causes, learned positively from our own personal experience and from our observation of others who are like us, are order, orderly movement, combination and convergence of forces. Where these are absent, we may be and are sure that there is no controlling final (intelligent) cause. Whenever they are found present in natural objects—as they are pre-eminently in the organic world—under such circumstances that we cannot trace back their origin to the action of an intelligent cause (or causes) known to us through material signs (such as reveal to us, for example, our fellow-men), it becomes a query whether, after all, these marks are not signs of intelligent action, even though the agent in question be invisible to us, or whether they can possibly be accounted for upon any other hypothesis than that of such action. The doctrine of this paper is that they cannot; that the limits and conditions of our knowledge, as above pointed out, render it impossible for us to know any kind of being, except as we apply to it the analogies of ideal being, or any kind of action which is not ultimately resolvable into rational action. But action in view of ends, *i.e.* “final causation,” is the characteristic of ideal being and of rationality, and hence we have every reason—so far as the logical necessities of the case, as a problem in cognition, are concerned—to interpret signs of rationality in nature, *i.e.* signs of the action of final causes) as really indicating rationality. An examination of some other explanations offered to account for marks of design in nature, will confirm our own conclusions.

The insufficiency of chance, as an hypothesis by which to account for such marks, is too obvious, and has been too often pointed out, for us to need to dwell upon it. Cicero's suggestion that it be applied to explain, if possible, the origin of such a work as the *Annals* of Ennius, through the accidental combination of metallic letters cast upon the ground, was sufficient from the popular point of view, to reduce it to the absurd; and any modern treatise on the theory of probabilities will show its moral insufficiency (*i.e.* the infinite number of

odds against its being sufficient) from the scientific point of view.

Another theory by which it is sought to explain the marks of final causation in nature, is that of blind, natural necessity. Matter and force, it is claimed, are known by us, and are known to be eternal and inseparable. The forces inherent in matter, it is maintained, are few in number; are, in fact, reducible to two, attraction and repulsion, and their necessary, undirected action is alleged to be sufficient to account, together with matter, for the universe as known to us.

The allegation is false. Science, as we have seen, knows nothing of matter, or of force; and the latter conception, in particular, she eliminates entirely from among the number of her valid or constitutive conceptions, retaining it only as an auxiliary or regulative idea, which represents nothing really known to science. The notion, therefore, of matter as the seat of inherent forces is not a scientific one, in the ordinary "positive" acceptance of the term "scientific."

Again, admitting the materialistic notion of matter, with its two inhering forces of attraction and repulsion, an immense induction remains to be accomplished, before it can be shown that these suffice for the explanation of the world (more especially of the organic world).<sup>\*</sup> It must be shown that everywhere in the universe only these forces operate, and that they follow and have followed only their own (assumed) blindly, necessary laws. The demonstration, to be absolutely complete would obviously require what is physically impossible, since so infinitesimal a portion of the universe only is accessible to our direct inspection. The limits even to our possible knowledge of the earth, both in its present condition and in its past history, are, plainly, extremely narrow. Still, where all is and must be largely theory, it would be manifestly unjust not to be satisfied, if the materialistic hypothesis could be verified in a few typical instances. If, for example, the morphology of a single natural-organism were explicable by the hypothesis in question—if it could account for definite symmetry in organic proportions (proportions represented by numerical ratios, and hence themselves representing a harmony, *i.e.* something ideal), it might with some show of reason be alleged as a true

---

<sup>\*</sup> For the present, as, among others, Herbert Spencer points out, we suffer under a "total lack of information respecting the infinitely-varied and involved causes that have been at work," not only in the evolution of the higher forms of organic life, but, we may also add, in the world-process in general. See Spencer's *Psychology*, new ed. § 208, *note*.

explanation. But up to the present time this has not been accomplished.\*

All theories to account for what is not an object of direct observation, it should be remarked here, have to be supported by indirect demonstration, and hence, with perfect logical propriety, the supporters of the materialistic explanation of natural forms occupy themselves largely with the attempt to show the insufficiency of the idealistic explanation. Such is the method partly followed by Mr. Lewes in his articles on "Mr. Darwin's Hypotheses," in the *Fortnightly Review* for 1868. I allude to him specially for the sake of getting the opportunity of saying what Mr. Lewes by his example illustrates—that the advocates of materialistic hypotheses too often misapprehend the true position of their opponents, and hence, in combating it, are fighting a man of straw. Thus Mr. Lewes assumes that the theory to be disproved by him is that of "creative fiats," or that every new formation is the work of a demiurge, whose creative hand takes hold from without of inert materials and forces them into definite relations and shapes. Great circumspectness should doubtless be observed, when we attempt to define the mode in which a divine hand moulds the materials of nature into their definite forms; for, that all natural forces and so-called "matter" are under the active control of the Deity, Christian idealism most surely holds, and must, as we believe, ever continue on philosophical and scientific grounds to maintain. Still, the conception which Mr. Lewes ascribes to those whom he opposes, seems to me clearly to belong to a past century. If it is still held by some, it by no means (we believe) indicates the ground occupied by the majority of intelligent teleologists at the present day. The latter must and do cheerfully admit that the order of things in the world is to be conceived rather as a continuous process than as a series of successive acts. They believe in the general presence of law. In fact, they accept nature just as science shows it to them. They regard their opponents as simply speaking truismatically, when they insist that the formation of every organism is an exceedingly complicated mechanical problem. They are aware that—since such, once for all, is the order of the universe in which we exist—nothing is to be accomplished in the world except on the basis of "mechanical" conditions, and they do not expect

---

\* Since writing the above, the third edition of Dr. L. Beale's work on *Protoplasm* (1874) has come under my notice. What the author states on p. 333 of his work is strongly confirmatory of the statement which I make above, as to that which Materialism has or has not accomplished.

these conditions ever to be overturned, however much they may be controlled and employed—as, for instance, man does, partially, control and employ them. They do not complain if natural ends are not realized by altogether the same methods which man would employ for their accomplishment. They accept all the apparent blunders and impotences of the “Idea,” which would realize itself in nature, as (at least apparent) facts; but they observe that these are simply incidents in a process by which, as matter of fact, *the Idea is, after all, realized*. For, that it is realized, Mr. Lewes admits—as, of course, every one does and must admit—since he says that although (according to him) “the type [Idea] does not dominate the momenta,” yet “it emerges from them.”\* Teleologists, of the kind now in view, simply insist that matter and its motions (“forces”) are not undirected, since the facts of natural existence are, they claim, inexplicable on the theory of blind necessity. They take their stand on this fundamental and ultimate question, whether “blind force” is either possible or real (in the last analysis), and holding that it is not, they conceive that intelligence, as a principle in nature—the only one remaining possible—is saved. The methods of this intelligence they propose to ascertain by examination of the facts and no longer by *à priori* speculation.

The theory under discussion is that of matter, with the provisionally admitted forces of attraction and repulsion, as sufficient to explain natural forms. Mr. Lewes, in the articles referred to, may be still cited as representing this doctrine. But his explanations—in this sharing an infirmity of materialistic explanations in general—presuppose what they ostensibly furnish. The shape assumed by a forming crystal, he says, “represents . . . the *direction* of its forces, the polarity of its molecules.” True; but the very thing to be explained is *this very direction* of the forces, this polarity of the molecules, whence the shape results or which it “represents.” Again: “The harmony of a complex structure results from the mutual relations of its parts.” Very true; these relations constitute (materially) the harmony; they are, so to speak, its body; but who or what determines the relations? Further: “The Law of Epigenesis, which is simply the expression of the material process determined by the polarity of molecules,

---

\* It is instructive to note, and pertinent here to mention, the strong language in which Strauss, in his recent atheistic *Confession*, expresses his sense of the presence of the “Idea” in nature. “The world,” he says, “may be defined as a whole of infinitely judicious contrivance” (§ 36).

explains as much of the phenomena as is explicable." That is, *law*, which states the *how*, tells all that can be known or with probability inferred respecting the *law-giver*, or the *whence* and *whither*! What should be shown, in order to justify the materialistic hypothesis, is, that, supposing matter to exist and to possess *ab æterno* and inalienably the forces above mentioned, these forces by their *blind* action would necessarily bring into existence the world as we know it. How far this is from having been accomplished, no one familiar with the results and confessions of natural science needs to be informed, and the above citations from Mr. Lewes may serve to show how far from conclusive are the arguments employed to accomplish it.\* And the insufficiency of the materialistic theory becomes still more palpable when confronted with the facts of conscious mind. True as it may be, that, at least for us, mind and a material substrate of mind are correlative and mutually dependent, yet we have the, in this instance, significant authority of Mr. Herbert Spencer for the assertion that "we remain utterly incapable of seeing, or even of imagining, how the two are related." (*Psychology*, new ed. § 56.) In like manner, Du Bois-Reymond, a man attached to materialistic explanations, affirms (in the address above cited) that not only the nature of matter, but also that of consciousness, is a riddle which must for ever remain insoluble for the physical investigator (p. 34).

Still another hypothesis, which is less blind to actual facts than is materialism, but which yet fails to fulfil the conditions of a satisfactory theory of the character and mode of operation of nature's forces, is that of an unconscious principle of reason in nature, manifesting itself chiefly or solely under the form of will (Schopenhauer), or as (unconscious) will and intellect combined (Eduard von Hartmann). Hartmann's *Philosophy of the Unconscious*, in particular, deserves notice, since the work thus entitled is undoubtedly the great philosophical sensation of the present quarter-century in Germany, and the publisher of it announces preparations in progress for its publication in various languages—among others, in English, at Boston, United States. Hartmann admits most fully and

---

\* I may be allowed, in this connection, to refer to the work by Dr. Hermann Ulrich, of Halle, entitled *Gott und die Natur* (Leipzig, 1862; a second enlarged edition has since appeared), in which, on the ground of a most comprehensive examination of the best accredited authorities in positive science, the untenableness of materialistic hypotheses is demonstrated, and God is shown to be the "necessary postulate of natural science." A translation of this work into English would, I am sure, subserve most efficiently the ends which the Victoria Institute proposes to itself.

emphasizes the presence and efficiency of final causes in nature. By new arguments and fresh illustrations he renders freshly impressive and convincing the argument for design in nature. But he seems fatally blind to what his argument implies. It is too obvious to need arguing, that an idea implies a consciousness of some kind possessing it. The independent existence of ideas, say as conceived by Plato, is hardly a part of any modern conception of the world, nor is this notion of them entertained by Hartmann. But this is the only possible alternative to the doctrine furnished by familiar experience, that ideas belong necessarily and only to a conscious subject. Hartmann's doctrine that there is in natural things an *unconscious* (!) intelligence and will, is logically so absurd in itself (being a *contradictio in adjecto*), and so unsupported and even contradicted by analogy, that—especially in a discussion which, like the present, must be brief—there is obviously no occasion to refute it by argument. Hartmann would avoid the necessity of acknowledging a personal God. We may leave the assumption, by which he seeks to reach this end, undiscussed, and content ourselves with accepting the powerful aid of the author's arguments in favour of the final cause as a principle in nature.

That the notion of final causation is a necessary *regulative* principle for our cognition of nature is affirmed by Kant, who, however, denies our right to consider it as having a known objective significance. This is a logical consequence of the fundamental doctrines of the Kantian philosophy. If, as Kant teaches, we know only phenomena, and cannot frame any just notions as to their causes by the use of human categories of thought (all of which, according to him, have only conditional, subjective validity), it is evident that the idea of final cause can be used by us only in judging of phenomena as they are *for us*, and that we are equally unjustified, whether we affirm that everything is produced in nature by the exclusive operation of mechanical or of intelligent (ideal, "final") causation. He who is unconvinced of the correctness of the theoretical basis of the Kantian philosophy (and the demonstration of its untenableness, as above intimated, has been already accomplished), may reject it, and, welcoming Kant's demonstration of the necessity of the notion of final cause as a principle of cognition, may extend it, in the absence of other than Kant's arguments to the contrary, to the realm of nature besides.

We may, then, hold materialism, which claims to rest on science, to be demonstrably inadequate to account for the apparent marks of the action of final causes in nature; its claims are repudiated in the confession which science makes

of the limitations of her own powers. "Unconscious intelligence," on the other hand, as a cause, is absurd; it is infinitely less plausible as an hypothesis than conscious personal intelligence. Nor need the notion of final cause be admitted as a merely regulative element of our knowledge of nature, having no constitutive value (*versus* Kant); for the assumption of the existence of a real, "material" world is not overthrown by argument, and is required by science; and so if, as Kant affirms, the conception of final cause is necessary in thought, there is no special reason, from the stand-point of a theory of cognition, for supposing it to be false in reality. If we must proceed in our knowledge from the known to the unknown, arguing as to the latter from the analogy of the former (and who will deny that this is a fundamental law of all progress in knowledge?), the conclusion is obvious, that we must assume the universally admitted resemblances to design in nature to have indeed resulted from such intelligent ("final") causation, as is alone, within the whole sphere of our experience, known by us to be capable of producing them.

It has been shown that science leaves it to the metaphysician to determine, so far as this is at all determinable, the nature and principle of operation of the true causes in nature. The only possible restriction upon this liberty will obviously be, that theory do not radically conflict with observable fact. Scientific laws of natural action, learned through observation, are laws of so-called mechanical sequence. Does the idea of final cause conflict with the laws of "mechanical" action? The laws of such action are laws of phenomenal sequence, and not of causation. So-called mechanical causes are not true causes. There is nothing, therefore, for the final cause to conflict with. But one thing is to be noticed. If, in this inquiry after the true cause, the expression "mechanical action" is assumed by materialists to cover the operation of so-called blind forces, it is falsely extended to denote what is not known, or to the very thing which is in question, and which "positive" science, when she seriously considers her limitations, acknowledges her inability, from her standpoint, to determine. Science cannot say that any force is blind, since she cannot say what any force really is. No one can show any impossibility that a final cause should manifest itself under what science terms mechanical modes. On the other hand, the order, regularity, and invariability of these modes (laws), and of what is accomplished under them, testify in favour of intelligent causation. And just in proportion as the attempt has failed—as it has completely—to show, in any approximate degree, the sufficiency of (assumed) blindly

operating agencies for the accomplishment of the world-process, are we compelled to fall back upon the only remaining rational hypothesis, that, namely, of the ultimate ideality of force, in its origin and direction, if not also in its essential nature. So far from mechanism, truly understood, and the final cause being opposed to each other, the two are in intimate alliance, our claim being that the former serves the latter, that mechanism is, once for all, in the universe, as we know it, the instrument employed by the Idea (let us say, rather, by the all-wise Creator and Ruler) for the realization of ideal ends.

Teleology is often charged with anthropomorphism. "It is said that it transfers into a sphere entirely different from that of human action—into the sphere of nature's activities—analogies which hold good only within the former. A work of human art, it is or may be urged, is formed through visible instruments, through the hand, whose skilful movements all can see, and with the aid of solid, palpable tools as means. The objector fails to discover in nature the analogue of these instrumentalities. And again, as regards the apprehension and statement of the ends of particular natural developments, it is urged that teleologists regard these too exclusively in their relation to human comfort and convenience, incorrectly regarding these latter as together constituting the great end, with reference to which all things are formed and adapted.

The former of these objections arises from a misapprehension of the point of analogy, which is to be sought, not in man's production of works of art or skill distinct from himself, but in his control of his own body. The force that directs the motions of the hand or other organ subject to the human will, is invisible, immanent in the human organism. So, the agency which directs and combines the forces of nature to orderly ends, is invisible and works from within. The true stand-point of teleology, in this regard, was not misconceived by Aristotle of old (see Aristotle's *Physics*, b. ii. ch. 8), and may be designated as that of immanent causation. The final cause, the Idea, identifies itself, so to speak, with the natural forces at work in any given case, or seizes hold upon them at the very centre whence they operate, guiding them to the realization of itself. And this is but a figurative way of expressing the truth that God, whom we regard as the source of all existence, is present by His power and wisdom in all that exists. Or, looking at the case, not from the point of view of the divine causation, which must on metaphysical grounds be affirmed, but from the stand-point of human observation and experimental description, we must say that the final

cause is a principle *in* nature, and indicates a fundamental mode of the operation of nature's forces.

No study of nature, no account of her products, is complete which leaves out of consideration the final causes, the *ends subserved* in these products, and severally in their parts. The Duke of Argyll has pointed out how Darwin, seeking to explain the development of organic species upon a mechanical hypothesis, constantly employs (with apparent inconsistency) the language of teleology. The case of Darwin is not, in this respect, an isolated one, and all such instances are simply to be explained on the ground that the facts speak for themselves in language too loud to be mistaken; and that they cannot be fully apprehended or described without reference to the adaptations and purposes manifested in them. In fact, were there no final causes in nature, there would be in it no reason, nothing upon which the reason of man could rest in his study of nature. The eye demands light for its own activity; in like manner, human reason must find in the world, which furnishes the material for its activity, something adapted and cognate to itself, something rational, or, in other words, the marks of reason (among which marks final causation is a fundamentally essential one), in order to its own exercise. Since man, as matter of fact, does find material for the exercise of reason in the study of nature, it seems to follow, even from the outside, experimental point of view of natural history, that there is reason in nature, or that nature is under the at least partial control of final causes.

With the conclusion that the final cause is a principle working immanently in nature tallies the significant assertion of German idealism (see I. H. Fichte's recent work, *Die theistische Weltanschauung*, Leipzig, 1873, p. 225), "that nothing extraneous to any individual existence can transform it, but can only excite it to self-wrought development." That is to say: external conditions may furnish the occasion for special developments, which are always, in the normal order of things, simply new adaptations, but the efficient and guiding force is within. Thus the conception of immanent (final) causation, or of God as working in things and not merely operating upon them from without, coheres with whatever facts may have been demonstrated as regards the variation of organisms. That would be indeed an unintelligent or impotent (final) cause, which, under changed conditions, either did not or could not adjust its work to these new conditions. Huxley's account of teleology (*Lay Sermons and Addresses*, xiii.: *Criticisms of "The Origin of Species"*) is therefore unjust, unless he wishes to describe notions held by the unthinking and not

defended by any truly philosophical believer in design. Plato of old perceived, as well as Hegel and Darwin in modern times have done, the obstructiveness of matter—the obstacles it opposes to the direct realization of the Idea. And no rightly-thinking man since Plato's time can, in view of obvious facts, have supposed that "each organism is like a bullet fired straight at a mark." Teleology does indeed claim that the organic and other natural processes in this world, being conformed to laws, are aimed towards more or less specific ends. But it does not claim that the organic world is a collection of units created separately and outright for the realization of distinct and wholly unrelated ideas. It does not ignore the fact of the inter-relation of these units, and that they are dependent on each other and on their relation to the whole world-process in general. It simply notes the *signs* of intelligence, of plan, and perceives the inadequacy of (assumed) blind force to account for them, and hence assigns (hypothetically) the only cause known to be adequate. Huxley has elsewhere, in showing the compatibility of Darwinism with design, shown that he has the idea of another and a more defensible kind of teleology than that which he seeks to discredit, and it is permissible to express astonishment at his assuming—contrary to the facts in the history of philosophical opinion—that the accredited ground of teleologists is that described by him, but held only by the most superficial.

As regards the charge of anthropomorphism in the specification and description of the ends of natural objects, those whom it affects must meet it if they can. We who recognize that God's thoughts are not as our thoughts may be content, if need be, not to know nor to seek for ulterior ends—ends extraneous to the organism itself, such as human comfort and convenience—where there is no direct organic connection pointing to such ends. It is enough to recognize the symmetry, the order, the beauty, the harmony in the organism—things for which the principle of final cause will surely account, and of which there is direct evidence—without assuming the existence of other purposes, the evidence of which is only indirect or even hypothetical. The principle of final cause is burdened with a weight which it is neither able nor justly required to bear when ends are ascribed to nature, our warrant for asserting which may perhaps only be found in the limitation of our experience or of our conceptive faculties.

The CHAIRMAN.—It is now my duty to move that the thanks of this meeting be presented to Professor Morris for the paper just read,\* the

\* Dr. E. Houghton says :—"In proof of the argument in the last

design of which I take to be, to prove that there is an intelligent Mind working in nature, and realizing itself in nature. I do not quite agree with one or two of the views expressed therein, especially the statement that a metaphysical foundation underlies science. It is difficult, if not impossible, to arrive at anything like certainty in metaphysical inquiries, for in the very outset we are confronted by the impossibility of proof; how then can science be established on such a foundation of *nescience* as this? I am surprised that this paper did not allude to such subjects as the being and existence of God, and to the Bible record. The author has referred to the subject of the creation, and the design of the Creator, who, as I conceive it, created all things for His own Glory rather than for the grandeur of man.

Rev. G. CURREY, D.D. (Master of the Charterhouse).—I can scarcely concur in the objection of the chairman as to the want of reference to the Bible record in the paper we have just heard. It appears to me quite clear that the design of the writer is, to show how we can arrive at a conclusion that there is an intelligent design in the works of creation simply by metaphysical reasoning. It would have been out of place in such an argument to introduce scriptural proofs, which of course rest on an entirely different basis. The purpose of the paper seems to me to be this—to set forth how we can, by a purely metaphysical reasoning, arrive at the conclusion that there is design in creation, and especially that form of design which is represented by the term *final cause*—namely, that this world and all that is in this world, came into being in consequence of, and guided by a purpose and a design which it was its end to accomplish: that seems to be the proposition which the author wishes to maintain. In starting, it is important to bear in mind, that all reasoning on such subjects as this must depend upon the assumption of an analogy between the nature of man and the operations of nature around him. If we do not conceive that there is a resemblance or analogy between our own operations and the operations of nature around us, we are unable to reason at all. Our argument must

---

section but two of the paper, I wish to mention a fact in relation to the argument which is sometimes put forward by a certain school with regard to organs and functions being created by the necessity for their exercise. Herr Büchner, I think, says that we have not legs for the purpose of walking with, but because we happen to have legs we walk; that eyes were not made for the purpose of seeing with, but because we happen to have eyes we see. The particular fact I wish to mention is one which is probably known to many. It has been asserted that the fishes found in the mammoth caves of Kentucky have not the faculty of sight, and have been born in perpetual darkness. A friend got some of these fishes and sent them home to Mr. Darwin, who found that they had well-formed eyes. Mr. Darwin, when previously written to on the subject, would not believe that they had eyes or properly formed visual organs. It was well known that they were blind; but, nevertheless, they were blind fishes with eyes. When the fishes were sent to Mr. Darwin he could not refuse the evidence of his own senses; though it appeared to be a part of the plan of nature which would not be altogether consistent with his own view of evolution."

depend upon an assumption of such a principle of resemblance ; therefore, that is the first thing to lay down. Then when we look around, in order to discover marks of intelligence in creation, we see in the first instance, symmetry, proportion, order, and the like. These we know do, in human productions, indicate design and purpose, and therefore, by the principle of resemblance and analogy, we conclude that these outward works, on the face of nature, indicate the existence of purpose and design. That is the first manner in which we observe intelligence. Then when we proceed to examine more distinctly the metaphysical argument by which men arrive at the doctrine of final causes, or in other words, at the belief that the world came into being with a purpose and design guiding it, we must start from the known to the unknown. We observe in the first instance, that in doing this we must pursue the metaphysical argument, because physical science will furnish us with no ground for judgment on the point. Physical science is the observation of the laws of phenomena, the gathering together of a certain number of facts to be accounted for by a certain hypothesis. But we do not get at all nearer true cause because we have discovered the law. Take gravitation ; an apple falls to the ground because there is gravitation : that is not the real cause, it is only a law. It is simply the observation of a law, and if we could go further back and find what produces gravitation, we should not be necessarily nearer the real cause. If we are to come to any knowledge of real causes, we must start from the known, and the only thing of which we have direct knowledge is the existence of our own conscious being. I know that I exist, I know that I act with a purpose, and that I am able to a certain degree effectually to carry out that purpose. That is known, that is positive, that is certain. From this then I can infer by analogy (that analogy which supposes a resemblance between the action and motives of beings), that other persons constituted like myself, act from like purposes, and so on. Therefore I can, by indirect knowledge, or by inference, gather information with regard to the principles of action, of persons like myself. But then, I may carry that out further and regard the actions of beings unlike myself in some particulars. In estimating their actions, I must consider some of the particulars in which they differ, and so far as I can estimate these differences, I may be able to discover from what I observe in myself, a good deal with regard to their principles of action. I may apply that to higher beings, and even to a Supreme Being. Taking into consideration what I observe with regard to my own action, and my own powers, I may add to that what I conceive of an Almighty Being. In this way I may arrive at a conclusion with regard to His action, and looking at the world around me, I discover by analogy signs of final cause, that is of a purpose, or of a design in creation. Then, if I go further, I observe the complex character of my own being, the great ends which I and those like me are capable of attaining ; this observation strengthens and supports the hypothesis, that all was created with a purpose and a design. That is the hypothesis of final causes. This seems to me to be the general purpose of the paper, and in such an argument Scriptural proof has no

place. In that general purpose I fully concur. With regard to another part of the paper, an interesting discussion might be raised whether the other hypothesis, namely, that of chance, blind chance and unconscious intelligence, would be more successful in leading to the same result. Upon this I do not propose to enter, but will only remark, the very term "unconscious intelligence" is in itself a self-contradiction, being nothing more than unconscious consciousness, or unintelligible intelligibility. I will in conclusion remark, that the well-known illustration given by Paley, of the watch, rests on the assumption that the operations of the Supreme Being in nature are in a considerable degree similar to the operations of man, and will mention an anecdote respecting Paley's argument. A person was putting forward the argument of the watch. "Suppose," he said, "you were to find a watch on Salisbury Plain, would not your first question be, who made it?" "No," was the answer, "it would not, because I should at once read on the dial-plate the name of the maker." The answer need not shake our faith, for in the voice of nature we have a dial-plate with the name of the maker written in legible characters. This brings us to the limits of a metaphysical inquiry. Important as such inquiry is, and necessary as it is that it should be kept distinct from scriptural arguments, it seems to indicate at once, the necessity and the fitness of revelation. The metaphysical argument is good as far as it goes, but it is not thoroughly satisfactory: it rests upon an analogy and a resemblance, and that analogy and resemblance must to a certain, to a considerable extent be imperfect, when we consider the different nature of a Supreme Being and of ourselves. But notwithstanding this imperfection of the analogy and of the argument founded on it, we are satisfied that they point to the right conclusion. It is a great deal of the truth, but it is not the whole. What does this show? It shows the necessity that there should be a written revelation. We want the name on the dial-plate. And if our philosophy at times fails to assist us, we recur in thought to the noble exposition of the Divine Creator and of the works of God set forth in the Scriptures, and find therein that revelation which our metaphysical arguments show that we need, in order to arrive at a certain conclusion.

The CHAIRMAN.—The last speaker has expressed what I wished to say with regard to the design and the Designer, and I will therefore only add, that I entirely agree with his able exposition of the subject. As to the paper, I should be very sorry to be supposed to object to its drift, being entirely in accord therewith, so far as I understand the object of the author; but I must say that if we were thrown back with Hartmann and the German metaphysicians on nature itself alone for understanding the nature of God, we should not be able to comprehend that nature at all. The arguments of metaphysicians certainly require the aid of revelation, without which they would be insufficient to produce conviction.

Rev. Principal J. H. RIGG, D.D.—I think we ought to thank the author for the able and valuable paper which he has communicated to us. It is a long time since I read a paper with more satisfaction than the acute and intelligent one which we have had read to us to-night. It is evidently

the wish of the author to meet the metaphysical men of science on their own ground, by means of scientific and metaphysical comment. The paper shows, I think, that Professor Morris is a master of his craft as a metaphysician. He has shown us, and I venture to think that it adds some value to his paper, that a Christian writer can be conversant with all the modern ideas on the subject, whether in England or Germany. I confess a difficulty in regard to the failure of nature, but I think it has been met in the only way in which it could be met—argumentatively, and very ably. It appears to me it is met, as far as human reason can pretend to deal with these things, in a satisfactory way, by the suggestions contained in this paper. In truth, his argument is this—that, whether or not the object is fully obtained,—there is clearly a purpose, clearly an idea,—and the mere presence of an idea itself necessitates the admission of a guiding and an overruling mind. Then he says in regard to the main failures: “Is not the idea in the whole brought out, that these very failures are parts of the whole process—parts of one entire law, which is to be exemplified by means of this vast nature, of which God is the mind and of which God furnishes the controlling force?” His assertion is, that it does not imply there is a defect in the whole because there is an apparent defect here and there. While he answers the objection in this manner, and contends that the great result and meaning and idea does emerge, he turns round and says, the mere fact that there is a type you cannot deny—a law you recognise as such, proves this is not mere blind force and mere unconscious struggling. And it is not merely this; he contends that the mere fact that there are types and ideas, whether at one moment fully realized or embodied, or not, proves that there is mind in the whole, and not mere matter. Then I must say also that I quite believe and feel persuaded that science could not be studied—could not be developed,—unless there were continually underneath, an assumption, more or less metaphysical. If we come to analyze, we find that the statement of the commonest laws of science involves a metaphysical assumption—a metaphysical hypothesis, and that we could not put knowledge into any form by which it could be conveyed to another person’s mind without such an assumption. Therefore you cannot attempt to deal with science, or criticise, or expound science, unless along with the whole of it you have a cognisance of the fact that there is a perpetual assumption of metaphysical ideas. And, no doubt, in that assumption of metaphysical ideas consists a great deal of the plausibility with which distinguished scientists have so misled us. There is a perpetual assumption of metaphysical ideas favourable to their own views, and by such an assumption they put into the premises what they mean to bring out in the conclusion. If we take the law of induction itself, which tells us to go to knowledge first-hand, whenever we can get it,—if we go on the principle of induction, the confusion and the assumptions of metaphysical scientists show that what does not harmonize with orthodox religion is false induction, after all. If we keep all our theories in harmony with the truths of our consciousness, as the first things we know, and if we will but deal with the facts of science on the basis of these truths of consciousness, instead of being led to

false conclusions, we shall, I think, be led, on the contrary, to the orthodox conclusions of the writer of this paper. There is in the close, in the last paragraph, a beautiful sentence, which harmonizes with a truth the chairman enunciated in his opening remarks. We are not to conceive that nature is to be made exactly as we would wish it, if we believe in the existence of a God at all. We are not in this sense to construe the truth which lies underneath the doctrine of final causes. This is beautifully set forth in the paragraph in question, where we read :—" We who recognize that God's thoughts are not as our thoughts, may be content, if need be, not to know nor to seek for ulterior ends—ends extraneous to the organism itself, such as human comfort and convenience—where there is no direct organic connection pointing to such ends. It is enough to recognize the symmetry, the order, the beauty, the harmony in the organism—things for which the principle of final cause will surely account, and of which there is direct evidence—without assuming the existence of other purposes, the evidence of which is only indirect or even hypothetical." Now that is tantamount to saying that God is in fact His own law, that He furnishes His own end ; that He has made the universe for His own glory, and that these signs and tokens of beauty and harmony, whether or not we happen to be able to see in them anything subsidiary to our own comforts, or tastes, or wants, are yet in harmony with Him whose glory is to be manifest in all and through all. I take it to be a matter of congratulation for the Victoria Institute that the knowledge of its efficiency and importance has reached Christian thinkers on the other side of the Atlantic, and that a man so able and distinguished as Professor Morris has been led to send us such a paper as this,—a paper which I believe is calculated to do immense service to us at the present moment in correcting a great many crude modes of expression in regard to scriptural evidences and divine things—a paper which will be found a very hard morsel for able and candid antagonists in the other camp to deal with. I have great pleasure in supporting the resolution, that the vote of thanks of this meeting be presented to Professor Morris for the able paper which he has contributed to the Transactions of the Victoria Institute.

Rev. Prebendary C. A. Row.—I agree with Dr. Rigg that the present is an exceedingly important paper. Professor Morris has dealt with all the metaphysical theories prevalent in this country, and which lie at the root of Pantheism. There can be no doubt that this is really the ground on which we must fight the battle of belief in a living God. It is necessary that we should closely examine the validity of the principles laid down by certain popular writers of the present day ; because, if they are valid, there is an end to all belief that a God has created this universe. This is the plain issue, and I fully concur with Dr. Rigg that the author of the paper has handled it effectively ; however, to my mind the paper has one defect ; namely, it is written in a style which makes it difficult for the ordinary class of readers to comprehend its general meaning. As to the omission of any reference to Revelation, no doubt Professor Morris felt that his proper subject was to examine into the principles which lie at the foundation of Theism, on the ground that it is necessary for

us to have a belief in a living God, as the precondition to the acceptance of all revelation. What are the principles which at the present day are put forth by eminent scientific thinkers? They tell us that the argument from causation, order, and adaptation, is invalid and worthless, to prove that there is a God who created the universe. On the validity of this argument is the turning point of all modern controversy between Theists on the one part, and Pantheists and Atheists on the other. In passing, I may say that I prefer the term "intelligent cause," which the author has used two or three times in the course of this paper, to the more usual one by which the same thing is designated "final cause." One point the author of the paper does not seem to have dwelt upon—namely, that order is distinct from adaptation, and that the order of the universe proves the existence of an intelligent mind. The great point this paper brings out is that the human mind is so constituted that it cannot possibly help thinking that order in the universe implies an orderer, adaptation an adaptor, and design a designer. It has been objected that these are conceptions which are purely human, and that therefore we cannot justly apply them to nature. I answer that all our conceptions are human. Force, law, matter, are human conceptions; and we have no conceptions that are not human. If such reasonings are invalid, because our conceptions are only human conceptions, we lay the axe to the root of the tree on which we are standing and render all truth impossible. The theory that reason in a latent state exists in the universe is one which is extensively held and requires to be effectually met, and it would require a paper by itself to meet the theory laid down on that subject. Still, I am sorry that the author of this paper has not in some degree dealt with it instead of laying down that the principle is simply absurd; for it is put forth by many able writers, and is supported by arguments not devoid of plausibility. We all of us do actions by habit, and these habitual actions leave no trace in the self-conscious intellect. A certain class of the instinctive actions of animals seem to be acquired in this way, but I fully agree with Dr. Rigg and Dr. Currey in thinking that the assumption of the existence of an unconscious intelligence diffused throughout nature is absurd. If this principle of unconscious intelligence exists in nature, it must exist in every particle of matter, and I do not see how you can arrive at any other conclusion. If it exists in nature—if, according to the atheistic theory, everything is built up of molecules,—it is quite inconceivable that intelligence can exist except as distinct molecules possessing intelligence—rational atoms, if you like to call them so.

The CHAIRMAN.—Leibnitz asserts that.

Mr. Row.—And also atoms must exist in nature that possess feeling. At any rate, as these views are very extensively taught, and as the object which the Atheist and Pantheist have is, by means of them to evade the idea of a personal God, I think it would be best to grapple with the subject in a distinct paper. I think the present paper is right in resting all our actual knowledge upon our self-consciousness. My self-consciousness and your self-consciousness are as much facts of nature as any physical fact you

can get hold of ; it is vain to deny this. Here then we have a certain groundwork of fact on which to build, and I think the writer of the paper has shown a proper appreciation of it when he endeavours to point out that our conception of force in the physical universe is nothing more nor less than a simple derivation from our own self-conscious action. Here we have a plain and obvious fact, which practical philosophy is bound to deal with as much as it deals with any other fact in nature. This being so, the fact leads up ultimately, to a proof of the being of a personal God. With regard to the definition which occurs in this paper of the "self-conscious Ego," I have my doubts about its being so good a one as might be given.

The meeting was then adjourned.

---

## REPLY BY PROFESSOR G. S. MORRIS, M.A.,

*(University of Michigan.)*

**I**N offering any comments on the foregoing discussion, I would wish first to express my appreciation of the kind and sympathetic intelligence with which my paper was received and discussed. The remarks made by various speakers show that the purport of the paper was fully understood, and I should be quite willing to let it go upon the records of the Institute without further explanation or defence than that which these speakers have offered. Still, I embrace this opportunity to present a few final and partly supplementary observations.

A word may be fitting as to the "metaphysical foundation" underlying "Science." That positive science does rest on such a foundation was fully admitted by those who took part at length in the above discussion. The same fact is recognized by men of note in all schools of thought and investigation. Nor are the facts on which metaphysics, or "philosophy," builds, of doubtful authenticity or altogether susceptible of a double interpretation. The paper offered partly failed to accomplish its object, if it did not show that the surest elements of human knowledge are of metaphysical origin.

The conception of metaphysics, or philosophy, as a science, was one of the earliest to be formed, because the philosophical instinct is inseparable from human reason, and must manifest itself from and after the first epoch of cultured thought. Its object is nothing more nor less than to attain to and demonstrate a correct view of the nature of things; and whatever be the end which, in the speculations of different thinkers, it reaches, whether the conclusion be materialistic or idealistic, it is still metaphysical. That is to say, it aims and, sometimes with an unwarranted assumption of absolute certainty, professes to furnish the true theory (science), not of the special laws and inter-relations of things as phenomena, but of their true causes and real nature. It seeks thus to furnish the common element in which all special sciences have their true basis, and in which they are organically united as parts of one harmonious whole—of one general, systematic conception of the universe.

And yet, simple as it may be in its fundamental data and principles, it is a science which appears never complete, and is, in some sense, a perpetual ideal. For its principles are required to have universal application. Whatever new realms of being may be brought to light, whatever new truths may be demonstrated in the special sciences, these must all be shown not to conflict with the principles of our pre-assumed and partially demonstrated metaphysical science. Hence, with the progress of special knowledge, the ever-renewed requirement that the philosopher shall show that his principles dominate the new facts, or new aspects of facts, which the special sciences

bring into view. But in this respect philosophy (the science of principles) is not fundamentally different from any other science of real things, in which, as is well known, there is always a combination of demonstrated fact with mere theory, and in which, too, the endeavour is constantly made, as in metaphysics, to reduce the limits of the latter, and extend the boundaries of the former. Now Christianity and the Bible involve a philosophy of things, which they assume rather than demonstrate. Yet they appeal with wonderful power to all that is best and truest in our natures. This is an experimental and powerful evidence of the truth of the underlying philosophy, or "metaphysics," of Christianity. Far from denying the possibility of philosophy, and its fundamental rank in the realm of human sciences, we ought, therefore, surely to unite in endeavouring to show, arguing on the ground of pure philosophy, that the philosophy (metaphysics) of Christianity, which I have termed Christian idealism, is not only defensible, but is the only philosophy which will fully account for all things and for all special sciences. Again, none can fail to be aware of the extensive rôle which the doctrine of the relativity of human knowledge has played in modern times; and that, too, in the writings of thinkers of the most opposite schools. Now, whatever may be thought of the doctrine in its application to other spheres of science, none, I imagine, will deny that all of our so-called positive science is relative. It is the science of the phenomenal, of things as they appear to us through the nerves, without reference to their ultimate causes and original and true nature. And yet we must believe that there are such causes; that something real underlies or causes the relative, the phenomenal. Now, to learn what is the nature of reality and what are its laws, there is no other method than the metaphysical one, which is founded on self-consciousness, knowledge of the true, rational, ideal self, and of the conditions of knowledge. This method is not dogmatic, or purely deductive. It is founded on self-observation, on an analysis of the necessary conditions of cognition, and is confirmed by a broad and never-ending induction, resting upon the study of the broad universe, which is found to be everywhere illumined by the light of intelligence—the element of man's own self-conscious life.

The error of scientific men too generally is, that they identify the results of their investigations in the region of the phenomenal with knowledge of the real. All positive science which is duly confirmed by observation, comparison, experiment, is to be accepted as true. But this true science of the phenomenal is not to be confounded with science of the truly real, or of the true cause, the underlying truth of the phenomenal.

I made no use of scriptural arguments, since, had I done so, I should have begged the question which I wished to prove. He who accepts Holy Scripture and Christianity admits, necessarily, the doctrines of God's existence, of creation, of Providence, and of the soul's immortality. He admits, therefore, that nature is controlled by and has its origin in intelligence. But my paper was designed to aid those who deny or honestly feel that they cannot intelligently admit the philosophical truth of the

Bible. There are, as I know by experience, thinking minds so entangled in the idea of nature as an original entity, working with blind, mechanical, resistless power, and of man as but a product and part of this natural mechanism, that they see no possibility of the truth of the doctrines of God's existence, of Divine Providence, and of human freedom. Such men must be met on their own ground. I conceive it to be our duty, as members of a society aiming to reconcile Science and Religion, to show our readiness to meet those who cannot yet agree with us, on the ground where their difficulties lie; to attempt to show them that their purely theoretical difficulties may be removed. Once make a man believe that the doctrines of Christian idealism are philosophically, *i.e.* really, possible, and he will not be long in concluding that they are probable, and then really true. Then the Bible will speak to his heart, and find responses in his best and inmost nature. He will find in it the indispensable food for his otherwise famishing soul. He will recognize in religion—and by this I mean true religion, the essence of Christianity—the consummate flower of human life and destiny; and God, as revealed in the person of His Blessed Son, will be loved as the One “who redeemeth our life from destruction,” and “crowneth us with mercies and loving-kindness.”

It would have been a pleasure to me to enter more fully into the discussion of the theory of unconscious intelligence, as the basis of real existence; had I deemed that such a discussion would be wholly relevant to the purpose of my paper, or would not too greatly extend its limits. I will now say, however, that I do not know what atoms are (I know of no one who does). But, if atoms exist, I most certainly believe them to participate, in some manner, in the ideal nature. I believe that God, as a Spirit (or, in philosophical language, the Ideal), is the source of all real things; and hence that all things have a God-given, consequently, a spiritual or ideal, aspect, which is their true being. Now, God's ways (the ways of the “Idea”) are not our ways, and are past finding out. How so-called “material” atoms can participate in the ideal nature without consciousness, I do not know. But so surely as I believe, and as a true philosophy demonstrates, that God is the source of all being, so surely am I convinced that the ideal element in the so-called atoms of the universe (in whatever manner it is to be conceived as existing) is the controlling and fundamental one. If this element is not conscious, it is yet impressed with a nature which compels it to comport itself in consonance with the intentions of that conscious intelligence in which it originated. The theory of an unconscious intelligence in nature as the first in time, as existing absolutely (and not by derivation from the Divine Being), and as that out of which human mind is necessarily evolved, is absurd; because the less cannot be the source of the greater, and because any conceivable form of intelligence, less than conscious intelligence, is absurd, except in so far as it is regarded as having its roots, its origin, its law, in what is conscious.