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ORDINARY MEETING, MARCH 6, 1882.

T. K. CALLARD, Esq., F.G.S., IN THE CHAIR.

The minutes of the last meeting were read and confirmed.

The following paper was read by the Author:-

THE SUPERNATURAL IN NATURE. By JOHN ELIOT HOWARD, F.R.S., F.L.S.

I.—Introduction.

THE title which I have chosen for this paper directs attention to a remarkable work by the Rev. J. W. Reynolds,* which has reached a second edition, in which form it has both pleasantly and profitably occupied my attention. I have not the least acquaintance with the author; but would wish to welcome him as a distinguished fellow-labourer in the work in which we are engaged, and to commend his book to the perusal of its members.

I was about to say thoughtful perusal, but this would be superfluous. If read at all, it must be thoughtfully; for the rich and fertile mind of the writer is well adapted to become the occasion of thought in others, and his arguments appear

generally unanswerable.

Such, at least, is my judgment, on a calm review of the whole. Failures and imperfections must be expected in a work of 500 pages; which would be much improved by condensation. Let us, before investigating these, record some of the conclusions to which this gifted mind is led.

^{*} The Supernatural in Nature: a Verification by free use of Science. By J. W. Reynolds, M.A., Vicar of St. Stephen's, Spitalfields. Second edition, 1880.

I shall not undertake a regular and complete review of the work of Mr. Reynolds; but, as of most importance, take first his remarks (p. 499) on "The Character of Christ":—

"The Holy Personality was not the slow combined product of a world-spirit, stirring, with high culture, a greatly-gifted race; nor a moral development equipped in the school and cultured in the palace. Jesus, the child of poor parents, educated as a carpenter's son, nurtured in Nazareth, of almost homeless poverty; was it possible for such a child, if but a child, to become that God-Man of work so mighty? Contrast his humility with Jewish pride, his charity with their fanaticism, his expansiveness with their narrowness: you will say that he is one whom they could neither produce nor invent. The prophesied of, yet secret One,—ever hidden from their eyes; their honour and their shame; inextricably woven into their history, yet always nationally refused. For nineteen hundred years he has been the centre and cause of all moral and spiritual development amongst the wisest nations, outside of these nations exists little knowledge yet, except in early childhood, he never stepped beyond the confines of Palestine.

Time chronicles centuries, myriads die; Jesus, imperishable as gold, lives for ever; binds the heart of the world to Himself with electric chains; tells how the soul, weak and wandering like a storm-driven bird, may nestle in the bosom of our Holy Father. In the spirits of men, where sin has opened an unfathomable depth of anguish, he causes streams of consolation to flow, and fill that depth. He makes our eye to sparkle with light, and our cheek to glow with the strangely sweet aspect of those who look into far-off worlds, and gladly hasten thither."

This, then, is the highest supernatural in Nature, God* manifest in the Flesh,—altogether miraculous and yet altogether fore-ordained by God, and the result of his purpose from the beginning; the unfolding of the hidden nature of God, for God is love. If this be indeed true, then it follows that in a divine sense it is most natural that his love should have found out this stupendous plan to save a lost world.

How naturally, in this sense, does Jesus teach us about it all in that beautiful parable in Luke xv. respecting the lost sheep and the shepherd! Was it not the self-same one who made this enigmatic world who gave the parabolic explanation?

II.—Need of Definition in the Terms employed.+

I could have wished that the author, whose works I am considering, had given us in the first instance a clear

^{*} For this as the true reading, see the Quarterly Review, October, 1881.
† I think that as a Philosophical Society we should endeavour to establish a more accurate style of phraseology than that which we meet with in popular language.

As regards the two words, Nature and Supernatural, I have followed out

definition of the words nature and supernatural. Perhaps in this I am too exacting; but as my tendency is towards the analytical rather than the synthetic view of things, I wish to know in the first place what we all mean by the words we use.

Our author says, "We do not deal with the controversies amongst believers, nor with scepticism in some of its rationalistic doubts, but with those who deny supernaturalism, who refuse to believe in a personal God, our Creator, our Preserver, our Father" (p. 3).

That nature is the constituted order of things is a definition which cannot be accepted by these, for it implies the existence of a Being that has constituted all things as they are. On the other hand, we cannot accept the definition that nature is the

order in which thing's have constituted themselves.

We start asunder thus at the very opening of the question. We look on things, as they exist, with different eyes; and the sentence I have quoted shows the belief of the writer that there is a fault not in the head, but in the heart, of those who do not see as we see.

They give us ever-increasing evidence of the marvellous perfectness of design and adaptation in those things which meet our observation; and even more especially in those parts of the universe, whether the infinitely great or the infinitely little, which lie outside the ordinary experience of humanity.*

And, they ask us, "Why, if all these things are constituted,' as we say, by an infinitely wise Mind, is there so much of evident evil and misery; especially in man, who must, by consent of all, be considered the crowning work of the whole?"

To this the sentence quoted gives an implied answer, that these persons are wrong in not accepting the explanation, which we believe to have been given by the Creator himself, in another revelation, without which the present visible Kosmos is but an insoluble enigma.

In this revelation we are told that "The invisible things of

Perhaps the question may now meet with more successful treatment by

those who I may hope will follow me in the direction indicated.

a line of research from sheer love of the subject, without any notion of being able, without co-operation of others, to arrive at any such accuracy as I desiderate in definition.

^{*} The Duke of Argyll well says:—"The new discoveries which science is ever making of adjustments and combinations, of which we had no previous conception, impress us with an irresistible conviction that the same relations to Mind prevail throughout."—The Reign of Law, p. 36.

God from the creation of the world are clearly seen, being understood by the things that are made, even his eternal

power and Godhead, so that they are without excuse."

But this our revelation tells us also that this present world was made subject to vanity; that it groaneth and travaileth in pain together, until the time of restoration of all things from the evil wrought by the entrance of sin.

There is, then, no common ground on which we may stand, and common terms are wanting. Not only so; we profess that it is by faith that we understand that the worlds were framed by the word of God; but agnosticism is the avowal of absence of faith; that is, of the power to apprehend the things that we believe.

We look, then, on the Kosmos, or, if you will, on Nature, with different eyes; and before we can settle the question, "Which is colour-blind?" must decide what is to be done in reference to this other revelation of God, to which we give in

our adhesion and they not.

But let it first be conceded that there can be no possible compromise. Either the believer is right or the agnostic is right. The vast number, who hover in a kind of cloudland between the two, are self-condemned by their own want of courage and of adhesion to the logical results of their opinions.

The true agnostic agrees with St. Paul, in saying that the natural man understandeth not the things of the spirit of God, neither can he know them, because they are spiritually

discerned. Mr. Reynolds says well:-

"The truths are objective; true before they are believed, and true, even after faith in them is lost. They are subjective also; their influence being the result of immediate operation by the Holy Ghost on the human heart and conscience. This must be remembered in dealing with opponents of Scripture: we shall not prevail with them unless we win our way into the conviction of their intellect, and into the affection of their will" (page 492).

Let us consider a little more closely the terms "nature," and "supernatural." How are they to be distinguished?

Listen to the Duke of Argyll (the italics are mine):—

"The supernatural: What is it? What do we mean by it? How do we define it? M. Guizot tells us that belief in it is the special difficulty of our time; that denial of it is the form taken by all modern assaults on Christian faith; and, again, that acceptance of it lies at the root, not only of Christianity, but of all positive religion whatever. These questions, then concerning the supernatural, are questions of first importance. Yet we find them seldom distinctly put, and still more seldom distinctly answered. This is a capital error in dealing with any question of philosophy. Half the per-

plexities of men are traceable to obscurity of thought hiding and breeding under obscurity of language."

Two other extracts from the same author will show how he attempts to clear the difficulty:—

"But let us observe exactly where and how the difficulty arises. The reign of law in Nature is, indeed, so far as we can observe it, universal. But the common idea of the supernatural is that which is at variance with natural law, above it, or in violation of it. Nothing, however wonderful, which happens according to natural law, would be considered by any one as supernatural. The law, in obedience to which a wonderful thing happens, may not be known; but this would not give it a supernatural character, so long as we assuredly believe that it did happen according to some law. Hence it would appear to follow that a man thoroughly possessed of the idea of natural law as universal, never could admit anything to be supernatural, be because on seeing any fact, however new, marvellous, or incomprehensible, he would escape into the conclusion that it was the result of some natural law of which he had before been ignorant."

Again :-

"What difficulty in this view remains in the idea of the supernatural? Is it any other than the difficulty in believing in the existence of a supreme will,—in a living God? If this be the belief, of which M. Guizot speaks when he says that it is essential to religion, then his proposition is un-

questionably true" (p. 22).

"To believe in the existence of miracles, we must believe in the superhuman and in the supernatural. But both these are familiar facts in Nature. We must believe, also, in a supreme will and a supreme intelligence; but this, our own wills and our own intelligence, not only enable us to conceive of, but compel us to recognise, in the whole laws and economy of Nature. Her whole aspect answers intelligently to our intelligence,—mind responding to mind as in a glass. Once admit that there is a Being who,—irrespective of any theory as to the relation in which the laws of Nature stand to His will,—has at least an infinite knowledge of those laws, and an infinite power of putting them to use, then miracles lose every element of inconceivability. In respect to the greatest and highest of all,—that restoration of the breath of life, which is not more mysterious than its original gift,—there is no answer to the question which Paul asks, 'Why should it be thought a thing incredible by you that God should raise the dead?'"

Why, indeed? if God be God, according to the view of St. Paul, Ο μακάριος καὶ μόνος δυνάστης, the blessed and only Potentate; but, if hampered by laws of nature, of which He has only an infinite knowledge and an infinite power of putting them to use, I should not see (were I an agnostic) whence the men of faith derived the certainty of their opinion. God must surely be supposed to have an infinite knowledge of the ways of man and an infinite power of putting them to use; but we recognise in every repetition of the Lord's Prayer that His will is not already done on earth as it is in heaven.

^{*} The italics are mine.

I entirely agree with the following summing up of the argument in the first chapter of the Reign of Law:*—

"Nature is the great Parable,+ and the truths which she holds within her are veiled, but not dismembered. The pretended separation between that which lies within Nature and that which lies beyond Nature is a dismemberment of the truth. Let those who find it difficult to believe in anything which is above the natural, and those who insist on that belief, first determine how far the natural extends. Perhaps in going round these marches they will find themselves meeting upon common ground. For, indeed, long before we have searched out all that the natural includes, there will remain little in the so-called supernatural which can seem hard of acceptance or belief,—nothing which is not rather essential to our undertanding of this otherwise unintelligible world."

Let us, then, consider a little more closely this expression, the laws of Nature, and seek to discover what it means and what it does not mean. We all act with absolute certainty on the understanding of the immutability of these "laws" as far as we know them to exist; but, nevertheless, do not profess to understand them, inasmuch as our knowledge is imperfect. For example, if Mr. Crookes shows us, on good evidence, a fourth state of matter (Reynolds, p. 398), of which we had previously no conception, we count it but sound sense to receive such rectification, as this discovery makes needful, of our previous conceptions on the subject.

Do we understand by "law" a power acting ab extra, as the wind moving the trees; or a power acting from within and inherent in matter? In the relations of atoms amongst themselves, as displayed in chemistry, and consequently in the constitution of the Universe, we surely must admit the latter as the true interpretation. It is much more the Ερος and Αντερος (attraction and repulsion) of the Greek philosopher than the reign of law of the noble Duke.

"First," says Hesiod,‡ "there was Chaos, then came Ge, Tartarus, and Eros, the fairest among the gods, who rules over the minds and councils of gods and men."

It was from this quarter (Thrace) that the Druids derived their know-ledge.—See my Druids and their Religion (pages 33, 47, 48).

^{*} People's Edition (pp. 4, 23, 54).

[†] The italics are mine.

‡ Hesiod lived about 400 years before Herodotus, or 850 B.C. "He derived his knowledge from the ancient schools of priests and bards, which had their seats in Thrace and Pieria, and thence spread into Bœotia, where they probably formed the elements out of which the Hesiodic poetry was developed."—See Smith's Dictionary, in loco.

"Eros was one of the fundamental causes in the formation of the world, inasmuch as he was the uniting power of love, which brought order and harmony among the conflicting elements of which Chaos consisted."

III.—The Laws or Conditions of Being.

Let us investigate further the laws of being. Not unfrequently the chemist, availing himself of the mathematical certainties of the laws of combination, forms a new body. He knows, we will suppose, of a combination of A+B, and also of A+3B. Then he reasons thus, that if A could be induced to combine with 2B, he would have something new, and he succeeds in obtaining the desired result. It may be said that this is perhaps, after all, not a new substance, since it may have existed before, though not known. But there are other cases in which it can be demonstrated that the substance cannot possibly have ever existed before. As soon as it is produced, however, it is found to have a law of its being; quite sui generis, presenting, perhaps, most important effects for good or for evil on the animal economy, or fraught with important advantages in the arts of life.

How, then, did this law of its being originate? Certainly not from without (unless so far as we understand that all things are from God), and if we say from within, we touch upon

questions insoluble by human intellect.

Was the promise and potency of all the new properties, which from henceforth will inhere in the new substance, attached provisionally to some four or five atoms,—say of carbon, oxygen, nitrogen, and hydrogen,—in addition to an almost infinite number of properties attached to other combinations of the same atoms? Or were the properties freshly bestowed by the Creator?

Perhaps the most intelligible proposition may be that the "nature" of each combination is fixed from the number and the arrangement of the atoms composing each molecule. This seems to lie at the foundation of the doctrine ascribed to

Pythagoras:—

"We find running through the Pythagorean system the idea that order or harmony of relation is the regulating principle of the whole universe." *

I suppose that no one would commit himself to maintain any of these theories. What, then, remains? It is so because it is its nature! Chloral will send you to sleep; but if you

^{*} Smith's Dictionary, sub voce, "Pythagoras."

take too strong a dose, the law of your nature is that you succumb to the nature of its influence.

An Italian ecclesiastic,* who abandoned the Christian religion and afterwards, as a professor at Milan, had considerable influence for evil, clothed his no faith in the following expressive terms, well adapted to the somewhat Machiavellian shrewdness of his countrymen.

"The world is what it is, and it is because it is; any other reason whatever of its essence and of its existence can be nothing but a sophism or an illusion." +

Mr. Reynolds seems to me to lose himself sometimes in the vain attempt to conciliate scientists by adopting from them theories of *Becoming* and of *Being*, inimical to faith, and of which Science herself is beginning to be ashamed.

I take, as an illustration, the following sentence:-

"This connexion of all visible things with the invisible, and of germs that are possibly not organised in the sense of being eggs, possibly in themselves dead as the inanimate matter and putrefiable substances out of which they creep as living things, is evidence, amounting to scientific proof (!), that there is a continual going forth from the unseen to the seen; evermore an awakening of life from the dead, which, whether called evolution or creation, renders the universe a sort of enchanted valley; and adds a strange unlooked-for confirmation to expectation that the forms which matter assumes are not its real substance,—not essentials, but accidents. Whether any piece of matter shall take the shape of solid or liquid or gas, seems a question of temperature and pressure. Who can tell the fixed and unvarying elemental form of matter? Has it any such form? Is it a mere condition of energy or force in loco? Ought we to regard it as endowed with the faculty of assuming every variety of shape according to the mere accidents of environment? Truly the world we live in is one of marvels; and if we regard it as a manifestation of the Divine Being, the mysteries are analogous to those of the written revelation profound, and as to essence inscrutable" (p. 5).

This passage ought to have been pronounced ex cathedrâ, to an admiring audience.

As it is found in a book written for the benefit of the agnostic, I must confess that I read it with extreme surprise. I thought that I was an interested and deeply-sympathising spectator of a duel between a champion of the faith and an agnostic, and here I behold my man lost in a fog and exposed to a mortal thrust without apparently being at all aware of his danger.

"Indignor, quandoque bonus dormitat Homerus.
Verum opere in longo fas est obrepere somnum."

^{*} Known under the pseudonym of Franchi.

⁺ The Heavenly Father, by Ernest Naville (p. 158). ‡ Horace, De Arte Poetica, ed. 1741.

It is not given to many authors to keep either themselves or their readers awake through a work of five hundred pages. It is really a comfort to find that in the course of a little time our author is himself again. Instead of that most damaging criticism which those who have heard Huxley or Tyndall discoursing on the properties of matter would know how to append to those portions which I have underlined, I prefer that the author should himself give the coup de grâce to his own "double" when he figures as a man of pseudo-science:—

"To assert self-existence is the denial of causation, and when we deny causation we also deny commencement. We must add to the absolute impossibility of conceiving this, the fact that we have to endow matter with all the powers of mind, and give to that which is dead all the properties of life, making matter to all intents and purposes God. Doing this we fall into the old heathen homage of Nature and worship Power, the phenomenal God. To worship Power only, Dr. Arnold said, is devil-worship" (p. 44).

In the next page but one Mr. Reynolds expresses his belief that,—

"The integration of all natural forces into a single agency,—one grand entity, God,—is the grandest conception of humanity, the profoundest of scientific truths" (p. 46).

This, I suppose, looks at the matter from a scientific standpoint, and is not quite satisfactory; because it does not ascribe the knowledge of God entirely to His revelation of Himself, but rather to a conception of humanity.

Another close-lying sentence is better:-

"The production of matter out of nothing is the real mystery; but as we are not only obliged to assume some cause, but also a first cause, or we cannot speak of causation, we say,—'All things are of God.'"

Here the agnostic interposes that this explanation is a petitio principii. How do we know this? Our answer can only be that we have a revelation from God Himself; which, on most certain ground of evidence, we commend to his acceptance.

This revelation informs us that no man hath seen God at any time: the only-begotten Son, which is in the bosom of

the Father, He hath declared Him.

And what, then, is the declaration? God is Spirit ($\Pi \nu \epsilon \tilde{\nu} \mu a \delta \Theta \epsilon \delta \varsigma$), and they that worship Him

must worship him in spirit and in truth.

This announcement sweeps away all pantheism, and all man-worship and devil-worship. It shows the nature of God to be absolutely separate from, although the originator of, that of every creature. He alone is SPIRIT, inhabiting eternity, dwelling in the light which no man can approach unto, before

whom angels veil their faces. The angels are *spirits*: they are never spoken of as co-equal with God; far less is man, who, though endowed with a spiritual nature, in which he can be rendered capable of communion with God, is never called *spirit*, and only under certain conditions is spoken of as *spiritual*. His fall from God has rendered him sensual, carnal, and, with all his powerful intellect, incapable, till renewed, of communion with God.

There can be no compromise. Either the above is true, or "Matter alone is eternal and divine," *—by matter understanding all those forces which are either inherent in or immanent on what we roughly call the materia of the universe.

IV.—The Cause of all Being.

We need not be ashamed of our knowledge of God. It is God-given, and not the result of our own superior faculties, nor of the "genius" of Moses, nor of "the gradual growth of the universal mind of humanity," as asserted by some philosophers. Hence there is a Divine certainty about it which we cannot impart to the agnostic, but which we cannot and ought not to conceal.

And here we arrive at the real substance of the universe,—that which "stands under" all its manifestations. That is God Himself, the "I am that I am," as revealed to Moses.

Having thus established the Causa causans, † I am not ashamed to confess immense ignorance in very many cases as to the causa causata. Why may we not be permitted to

enjoy the luxury of saying, I do not know?

It is, at all events, a real luxury to turn from attempted explanations of laws of nature and from eloquent periods in public addresses, which probably do not even satisfy the intellect of the preacher himself, and refresh ourselves with the grand and simple language of the Psalms and the Old Testament generally; where we see everywhere the omnipresent Jehovah; or in the New, where we behold the Son of God upholding all things by the word of His power.

V.—Organised Nature.

He, "binding Nature fast in Fate, Left free the human will."

Pope's Universal Prayer.

I have thus far been considering only matter in its in-

* Page 35, quoted by the author.

⁺ See Boyle's Free Inquiry, quoted in Johnson's Dictionary, sub voce. "Nature."

organised state,—dead matter, as it is sometimes called,* which, nevertheless, we behold by the aid of science instinct with marvellous endowments and with never-ceasing activities; indestructible apparently, though ever changing in its manifestations, not losing its own peculiar nature when subjected for a time to the vital force, nor coalescing with life; but, when life has departed, returning to its old chemical affinities; evermore displaying the glory of God to those who can skill to trace the mathematical precision of all the infinitely varied forms and combinations in which it presents itself to the mind of the student of Nature.

But, till we have organization, we never find the adaptation of all the parts to the good of the whole. Still less do we discover that which, at first indistinctly indicated in the vegetable creation, manifests itself in the very lowest forms of animal life, and even in those creations which seem to pass from one kingdom (as we used to say) to the other in the course of their brief lives.

I refer to the individual WILL of the mere sac of living matter that, as the amæba, knows how to enclose its prey at its pleasure, for the satisfaction of its appetite; or as a *vibrio* can direct its free motions not without aim of its own. For each creature has its own free will.

When we look at the world of organized existence, we find that every living thing has its own individuality, and is endowed with a property of first developing that individuality out of an embryo at first shapeless and formless, and then of maintaining that individuality and even of reproducing parts that are accidentally rendered defective, as the lobster reproduces its claws according to the type. Some such explanation must be given to what physicians call the vis medicatrix nature.

Moreover, each creature has the power of reproduction of its own image; sometimes the formative idea passing through even three or four intermediate types in which it could not be recognised, but the chrysalis produces in its perfection the special butterfly to which the perfect realisation of the type tends from the beginning.

Nature is creative and upholding, not by any inherent power of its own, but by the will and power of the Supreme, who acts in and through his creatures, for in Him we live, and

^{*} I object to the term dead matter as entirely unscientific and misleading. "Deprived of life" is the first meaning given to the word "dead" in the English Dictionary I turn to, but "matter" has never been "deprived of life."

move, and have our being. Take away the Unseen and the

Supernatural, and all would resolve itself into chaos.

By no effort of ours could we force a single atom to combine otherwise than in accord with its nature. It is otherwise with organized nature. In this realm we are permitted to be to a certain extent creators, in so far that many of the most useful plants, and fruits, and grains are not exactly such as they are given to us by nature, but modified by art. Scientists have overcome the repugnance which God has implanted in animals to union with divergent types, and produced thus some monstrous results, of which the so-called Leporides (half rabbit half hare) were a short-lived example.* In all these artificial variations, however, there is wanting that fixity of organization which belongs to the primitive type. This is shown by the continual tendency to relapse into the wild or natural state.

Every creature has its nature, and rejoices in the perfectness of that nature. The personal will and identity of the bird is as manifest as in that of the man; God having so decreed that each life that he has given should be in its measure a reflection of his own ever-blessed existence.

The following anecdote illustrates my meaning. The writert is relating how he had undertaken to make an artificial dove which was to sustain itself in the air by means of an ingenious mechanism:—

"I had wrought unceasingly at its construction for more than three months. The day was come for the trial. I placed it on the edge of a table, after having carefully closed the doors, in order to keep the discovery secret, and to give my friend a pleasing surprise. A thread held the mechanism motionless. Who can conceive the palpitations of my heart, and the agonies of my self-love, when I brought the scissors near to cut the fatal bond? Zest! the spring of the dove starts, and begins to unroll itself with a noise. I lift my eyes to see the bird pass, but after making a few turns over and over, it falls, and goes to hide itself under the table. Rosine, my dog, who was sleeping there, moves ruefully away. Rosine, who never sees a chicken, or a pigeon, without attacking and pursuing it, did not deign even to look at my dove, which was floundering on the floor. This gave the finishing stroke to my self-esteem. I went to take an airing on the ramparts. I was walking up and down, sad and out of spirits, as one always is after a great hope disappointed, when, raising my eyes, I perceived a flight of cranes passing over my head. I stopped to have a good look at them. They were advancing in triangular order, like the English column at the battle of Fontenoy. I saw them traverse the sky from cloud to cloud. Ah! how well they fly, said I to myself. With what assurance they seem to glide along the viewless path which they follow. Shall I confess it? Alas! may I be forgiven! The horrible feeling of envy for once, once only, entered my

^{*} See Dr. Lucas, Hérédité Naturelle, T. ii., 201.

⁺ Zavier de Maistre, quoted by E. Naville, Lecture iv., 1863, Geneva.

heart, and it was for the cranes. For a long time afterwards, motionless, in the midst of the crowd which was moving around me, I kept observing the rapid movement of the swallows, and I was astonished to see them suspended in the air, just as if I had never seen that phenomenon. A feeling of profound admiration, unknown to me till then, lighted up my soul. I seemed to myself to be looking on Nature for the first time. I heard with surprise the buzzing of the flies, the song of the birds, and that mysterious and confused noise of the living creation which involuntarily celebrates its author. Ineffable concert, to which man alone has the sublime privilege of adding the accents of gratitude! Who is the Author of this brilliant mechanism? I exclaimed in the transport which animated me. Who is it that, opening his creative hand, let fly the first swallow into the air? It is He who gave commandment to these trees to come forth from the grounds, and to lift their branches towards the sky."

De Maistre thus found out the difference between a Godcreated universe and a self-created mechanical world, between existences and machines.

Haeckel (Reynolds, p. 104) tells us:—"Life is nothing but a connected chain of very complicated material phenomena of motion."

Who does not see that if our amusing author had been endowed with skill and power to complete the chain, he would still not have formed a bird, but only an automaton. However perfect such automata might be, they could not be conscious of their own happy existence, nor have such instinct to guide their flight as called forth his admiration. "Doth the hawk fly by thy wisdom, and stretch her wings towards the south?" (Job xxxix. 26.)

I am conscious of a hearty desire to know more on the subject, and find in Mr. Reynolds many passages of elaborate description of what is already known. Far from any wish to settle down in superstitious ignorance, I ask to know more; for all will but declare more of the glory of God. Only let the knowledge be real.

I am unable to lend myself to that facile acceptance of plausible inanities, which is so common, that even Professor Huxley (Reynolds, p. 15) says:—

"The army of liberal thought is, at present, in loose order, and many a spirited freethinker makes use of his freedom merely to vent nonsense. We should be the better for a vigorous and watchful enemy to hammer us into cohesion and discipline; and I for one lament that the bench of bishops cannot show a man of the calibre of Butler of the Analogy, who, if he were alive, would make short work of the current à priori infidelity."

This eminent Professor begins to see that the superstitious adherence of the followers of evolutionist theories to their chiefs, is a real hindrance to the progress of science. He has good sense enough to know (also) that our ignorance is greater than we willingly confess.

VI.—Animated Nature.

What, then, is the nature of the animal creation? In how far is the essential identity of each creature fixed? In how far liable to inherent change? In how far modified by circumstances? Is there any such thing as species, or is all nature in a continual flux, the sport of chance? Or are the creatures, man included, all improving themselves (excepting those myriads of types which are improved off creation), and all tending towards perfection?

I may venture to say that we are not yet prepared with answers to these and many other questions. May I add that our knowledge of inanimate nature in chemistry is much more

demonstrably perfect than that of animated nature.

We do not know what is natural. How, then, can we dis-

tinguish what is supernatural?

The following comes to hand whilst I am writing, as an appropriate illustration of my meaning:—

"INTELLIGENCE IN ANIMALS.—Some years ago my father, who was a medical practitioner in Somersetshire, had a valuable horse, which eventually he was obliged to part with, as it was vicious, and not always safe to drive. During the time my father drove it, he had occasion to visit daily for several weeks an old gentleman who had met with a serious accident. His patient lived at the bottom of a steep lane, which branched off at right angles from the main road. This horse was always used for visiting this patient, and during the first two or three weeks, when there were dangerous symptoms, was frequently driven down the lane twice a day.

"The farmer to whom my father sold this horse lived at a distance of several miles beyond this turning on the same road, attended regularly the market in the town where my father lived, and necessarily passed this sharp turning both going and returning therefrom. Some three or four years after purchasing this horse, he had occasion to drive into the town to fetch my father to attend his wife. As the case was urgent, he got into the gig, and was driven by the farmer towards the farm where he lived. Suddenly, without the slightest warning, the horse turned down the lane he knew so well, nearly

capsizing them.

"As soon as they had recovered themselves, the farmer exclaimed that 'he had never known the horse do such a thing before all the years he had had it.' My father was surprised, and said, 'Not when you have driven this way to and from the market?' The farmer replied, 'That the horse never even so much as looked at the turning, whilst he had driven it until now.' 'Well,' said my father, 'he must associate me, knowing that I am in this gig, with the many visits he used to pay with me down that lane, when I attended my poor old patient at the bottom, after his accident. I patted his nose before starting, and he knows by my voice that I am behind him. His memory has served him well, and he concluded that I must be going the same journey we performed together so many years ago.' My father always considered this fact evidence of reasoning powers in the horse, and although I incline to the same opinion, I will not comment upon it, but content myself with simply relating this anecdote. Nov. 19, 1881."—A. H., in Knowledge.

This is all natural, and such facts could be multiplied indefinitely. They surely show, in so far, a kindred nature in man and animals,—a kinship which is finely brought out by Burns in his address to a field-mouse,—his "poor, earth-born companion and fellow-mortal,"—applied, moreover (in the true spirit of poetry) to an instructive end:—

"Still thou art blest compared wi' me,
The present only toucheth thee;
But, och! I backward cast my e'e
On prospects drear!
An' forward, tho' I canna see,
I guess an' fear!"

The next anecdote immediately following in the same periodical conducts us still further:—

"A singular instance of apparent prescience in a dog occurs in an account given Nov. 21 of a father shot by his son. Here is the evidence of the wife

and mother:-

"'We heard nothing to disturb us after retiring to bed until about half-past two o'clock next morning. About that time a little dog which belonged to my husband, and was a great favourite, came upstairs, and jumped upon our bed. My husband tried to make the dog go away, but he could not do so, as the little thing seemed so "fussy." At last he thought the best thing to do would be to take the dog downstairs, and, by shutting the door at the bottom, prevent it from returning. My husband got out of bed, and took the dog in his arms for the purpose of carrying it away. In about half a minute, and when he was on the stairs, I heard a loud report, as if a pistol or a revolver was being fired. This was repeated twice, and the deceased then shouted out at the top of his voice, "I am shot!"

"The peculiarity here is that the coming danger, of which the animal appeared cognisant, could only have been imparted by the footsteps or other movements of a member of the family; this, under ordinary circumstances, could have given no such premonitions of danger to the dog. Has

any similar case been observed?"

Is this supernatural or is it not?

I have been myself compelled to yield to invincible repugnance of a horse to pass a place which he remembered as an Aceldama, or "place of shedding blood."* This aversion belonged, I suppose, to his nature; but if so, the nature of a horse partakes of greater sensitiveness than that of man.

I now proceed to consider a case of the evidently supernatural class. It is that of the ass of Balaam, whose mouth, it is said, "the Lord opened." I will not attempt to show that some undiscovered law of nature might exist, of which

^{*} An old slaughter-house.

advantage was taken to give the rebellious prophet a lesson. Such reconciliations of Scripture and science seem to be generally feeble in conception, and when completed (for the most part) more difficult to receive than the simple narrative itself. I admit at once that the whole was above nature, and not only so, but contrary to nature, but claim that my opponent should make this admission, that what is impossible with man is possible with God.

Having obtained (if only for argument's sake) the admission that the narrative is *true*, look how entirely *natural* the whole seems; though admitting us into a region of which we know nothing till our eyes are opened,—namely, that of the ministra-

tion of angels in the Providence of God.

Could anything be imagined more truly natural, if only a supernatural Power be admitted to have been exerted to give new faculties to the brute to express those feelings which may well be present to the nature of an animal under ill-treatment even now? Do we not see the like feelings expressed in the intelligent eye of the dog, in the tears of the deer?

Probably some latent powers, of what have been often considered the supernatural sort, are inherent in the nature of man. A clerical acquaintance related to me, how, in a perfectly natural way, he acquired the power of soothing nervous pain in others. I had happily no occasion to test his

powers.

The following is of a different kind. "In the life of Lord Chief Justice Holt, a curious anecdote is recorded. It appears that, when a young man, Holt happened, on one occasion, with some companions, to stop at an inn in the country, where they contracted a debt of such amount that they were unable to defray it. In this dilemma they appealed to Holt to get them out of the scrape. Holt observed that the innkeeper's daughter looked remarkably ill, and was told by her father she had an ague. Hereupon he gathered several plants, and mixed them together with a great deal of ceremony, afterwards wrapping them in a piece of parchment, upon which he had scrawled certain letters and marks. The ball thus prepared he hung about the young woman's neck, and the ague did not return. After this the never-failing doctor offered to discharge the bill, but the gratitude of the landlord refused any such thing, and Holt and his companions departed. When he became Lord Chief Justice, a woman was brought before him accused of being a witch. She was the last person ever tried in England for witchcraft. She made no other defence than that she was in possession of a certain ball which infallibly cured ague. The ball was handed up to the Judge, who untied it, and found it to be the identical ball which he had made in his youthful days for the purpose of curing the woman's ague and paying his own bill."*

Many things are natural which might not be thought so at first sight. I have known a man cured of ague by the usual remedies, but, suffering from a relapse into all the symptoms

brought on by a shock to the nervous system.

I cannot dwell upon the nature of man,—tripartite, as I think it is,-body, soul, and spirit; a view in which Mr. Reynolds appears to agree (see page 154), further than to say that this certainly appears to be the doctrine of Scripture, in which I am happy to be able to agree, whilst acknowledging my dissidence not only from the painful nonsense, -of thought being connected with molecular changes in the brain,—but also from the notion that the action of the spirit in man is necessarily dependent on the bodily organs at all. When sight is withdrawn the sense of touch has become so exalted that a botanist could still distinguish plants by contact with the thin skin of the lip, aided by the tongue; colours also have been in the same manner distinguished; and in a recent case which excited much attention in the medical world each sense as it was withdrawn seemed supplemented by some other.+

All this is natural, but what are we to say to those cases in which the spirit when departing from the body makes itself known to those at a distance by impressions on the organs of sight or sound.‡ I should have thought it incredible, or at all events superhuman, that I should be able to converse with a friend at some miles distance with more ease than across my own table (if that friend be a little deaf); yet so it is, in these days of the telephone, and we all know there is nothing

supernatural about it.

From the teaching of Christ we must be led to understand that "all things are possible to him that believeth," and that many things, not only superhuman, but supernatural, may be natural to the new man. So St. Peter, that disciple whom we all feel so entirely one in nature and in all natural frailty with ourselves, walks on the waves, and even raises the dead,—of course, not without the special assistance of Divine power.

The widely published event connected with the lamented death of

George Smith, B. A. Soc., will serve as one instance.

^{*} Quoted from the Penny Magazine for 1835.

⁺ See a paper on the "Transference of Special Sense" in the Journal of Psychological Medicine and Mental Pathology, vol. vii., pt. i., p. 37; also Biography of Mrs. Croad, Bristol.

VII.—The Meaning of Nature.

According to our Revelation, the Universe is represented as the wondrously wrought and splendid robe of the Almighty, such as the kings were accustomed to array themselves with when they sat down on their thrones of royal majesty. All creation is represented as the handiwork of God, and as having for its primary object His own pleasure. Heaven records this as a worthy object. "The four-and-twenty elders fall down before Him that sat on the throne, and worship Him that liveth for ever and ever, and cast their crowns before the throne, saying, 'Thou art worthy, O Lord, to receive glory and honour and power: for Thou hast created all things, and

for Thy pleasure they are and were created."

Rebel spirits and rebel man may object, but all must admit that the statement gives a logical explanation of the meaning of Nature. All is represented as made by the $\Lambda \acute{o} \gamma o \varsigma$, the Word who was in the beginning with God, and from this wondrous source the archetypal ideas must have arisen,—the thoughts of that mighty Mind, if we may so speak reverently, clothing themselves with objective reality. Hence the distinctness of type. Everything is brought forth by the earth and waters "after its kind." Jehovah Elohim made every plant of the field before it was in the earth, and every herb of the field before it grew (Genesis i., ii.). The (pseudo) Zoroaster, and the Platonists in general, had the same conception, traditional The Father apparently, and not derived from our Revelation. is represented as "understanding by mature counsel ideas of every form; these spring forth to sight flowing out of one For the Almighty Ruler set before the world an fountain. imperishable intellectual pattern (νοερὸν τὺπον ἄφθιτον) or original model, the print of whose form was made to appear through the world, which hence is beautiful with all kinds of ideas (παντοΐαις ίδέαις) of which there is one fountain."

This, according to Cory, is Sabæan Philosophy in a Greek dress, and if so, it must, according to Dr. Chwolson, reach far back in the world's history into the dim ages of the past, when Abram was brought into conflict with these sectaries.

who boasted of deriving their religion from Seth.

If all invented by the Greek mind (however), this notion of embodied divine ideas will stand advantageous comparison with the notions of our scientists. If there is no determination on the part of the Almighty Ruler to preserve these types, what reason can be assigned for the unspeakable disgust at the violation of those certain boundaries which he will not have overpast?—Whence the world-wide conviction that

in the lion we have a type of majesty and strength, in the peacock of pride, in the ape a satire on humanity, in the bee-hive the image of a well-ordered state, and so forth throughout creation?

Admirably did the Greek mind catch hold of these conceptions. Nature, they said, gave certain means of offence and defence to all creatures, but when it came to the creation of woman, she had nothing left. What then did she give her?

Beauty! and beauty overcomes strength.

I know not how this may be, but without leaving my own belongings, I see how Nature arranges her parable. I have a strong, well-trimmed, quickset hedge, which, of course, I like to see uniform; but, alas! what has happened? I see it in parts decaying, dead. I have just been obliged to dig up portions and replace; a remedy which, perhaps, will, after all, For in searching after the cause, I call to mind that beautiful bindweed which in summer covered with its luxuriant foliage the hedge where it rested, and adorned in seeming thankfulness with its white flowers of the chastest purity the crabbed couch on which it rested so languidly. I remembered that it had in some way insinuated itself amongst the roots, depriving the supporting hedge of some part of its nourishment, and then with gently insinuating embrace binding itself ever more strongly round the branches of the thorn. The convolvolus has conquered here, I say,—beauty has triumphed over strength.

Whence, we may ask, come these destroyers, which I am ready to think comprise one-half of animated creation? How beautiful many of them are! how perfect in their creation! Look at the tiger of the East, and consider his ravages amongst the population; and, again, the serpents of the same district. Of what fierce delight in life the genus Felis gives us instances; how they rejoice to lick the warm blood! Our common cat—what a perfect creature she is in her well-knit limbs, and what ingenious cruelty she displays in tormenting

her victims!

Will our utilitarian opponents inform us what is the meaning of all this, or why the destroyers of the Saurian epoch have, after all, been compelled to give way to the comparative tranquillity of the present? Will beauty and grace have the victory in the end?

In page 103 (Reynolds) I read as follows:—

[&]quot;Have the living particles which are arranged into the shape of an organism an innate tendency to arrange themselves into the shape of that very organism to which they belong? This is a hard thing to say, though the tendency to assume the specific form must be inherent in all parts of the organism."

Mr. Reynolds searches vainly for an intelligible answer to this question, which conducts us to the very confines of our knowledge, and shows us how wonderful is the constitution of Nature. This is well stated by Dr. Lionel S. Beale, F.R.S., who has instructed us more in the mystery of life than any other author:—

"In living centres, far more central than the centre as seen by the highest magnifying powers, in centres of living matter where the eye cannot penetrate, but towards which the understanding may tend, proceed changes of the nature which the most advanced physicists and chemists fail to afford us the faintest conception."

This is real science and real philosophy, and shows that we do not fully comprehend Nature in her most common modes of action, and therefore, no wonder that we have no proper words to describe the mystery hidden behind the above centres. But our wise men who deny all God-given knowledge have no difficulty in forging explanations.

Listen to the following (quoted at p. 109, Reynolds*):—

"So that when a man, translating the formula, says 'the joining of stuff into a lump, then the equal unjoining and sending out of movement from it, the making stuff pass from a no sort of unstickingness into some sort of holding-togetherness, while the movement not sent out undergoes a like change from no sort of keeping-togetherness into some sort of sticking."

Haeckel tells us, "Life is nothing but a connected chain of very complicated material phenomena of motion. These motions must be considered as changes in the position and combination of the molecules" (p. 104).

And Haeckel is a consistent Materialist and the prince of all Evolutionists; so that having failed to reach any water in pumping at this dry well, I am not so much disappointed in coming back to our author's own explication:—

"We are driven to the conclusion that, complex as are chemical units, physiological or life units are more complex; that difference of composition in these units themselves, leading to differences in the mutual play of energies, causes the endless varieties of existing forms" (p. 104).

I must be pardoned for saying that we do not understand these varieties nor what constitutes the individuality of any

^{*} Being our author's rendering in English of the sentence he quotes from H. Spencer's *First Principles* (p. 396). This piece of "plausible inanity," as quoted by Reynolds, is as follows:—

[&]quot;It is an integration of matter and concomitant dissipation of motion, during which the matter passes from an indefinite, incoherent homogeneity, to a definite, coherent heterogeneity, and during which the retained motion undergoes a parallel transformation."

living thing? What makes the beech-tree which I see before me a beech-tree rather than an oak? And why, when we have succeeded so far in putting force upon this individuality as to constitute the fern-leaved variety, do individual branches sometimes revert to the old hereditary type, as I have seen on more than one occasion?

It must be a very strong "sort of holding-togetherness" which keeps the type dog the same in all the fifty or sixty varieties which man has either found or formed, and which makes it impossible for the type dog to mingle with the type fox; the latter having an eye adapted to the twilight, the nocturnal idea cannot harmonise with the diurnal. The same in pigeons, flexible as is the pigeon nature; whilst the admirable goose refuses to be mystified and remains goose still. But what shall we say to the Lingula, which gives its name to the Lingula flags of Wales, and of which Murchison says, "The genus has, indeed, lived on from the Silurian or primæval days to the present time, though its former associates, the graptolites and trilobites, vanished long ago from the world."*

This primæval inhabitant of Wales has refused to mingle its nature or to change its type for an incalculable period of time. We are here, confessedly, within a measurable distance

of the beginning of animal life.

The creatures, according to Genesis, were formed at different periods. According to the testimony of the rocks we must come to the same conclusion. For do we not judge of the relative age of different deposits by the organic remains which

they enclose?

All honour to the Lingula! but what shall we say about its strong individuality of nature? What caused this sticking-togetherness of its type? At all events, this bivalve† has continued from the very earliest beginning,—a witness against the truth of evolution. For why should this type remain fixed, and the others develop themselves, even up to man? The geological record is, in this case, too complete for the evolutionists.

It is correct science now to deny all individuality to trees,

* Murchison's Siluria: the History of the oldest-known Rocks containing Organic Remains" (pp. 40, 41).

[†] In order to secure correctness, I wrote to my friend W. Carruthers, F.R.S., V.P.L.S., F.G.S., as first-rate authority. He replied, "The reference to the Lingula is quite correct. It would be more correct to call it a brachiopod than a bivalve, for though it has two valves, the name "bivalve" does not generally include the brachiopoda."

and, of course, I assent to the opinion of those who know, i.e., of "scientists"; moreover, I see that this individuality can be multiplied into as many individualities as you can succeed in growing by cuttings from the plant. But how am I to understand this fact, that each part is fitted to subserve the purpose of the whole? If there were not the ascending and descending axis the notion of tree could not exist. If all were root, there would be no upward growth. If there were no ascending sap, how would the trunk or branches be formed? If there were no leaves, how could there be any increase?

How wonderful the hydraulic machinery which pumps up, filtering at the same time the fluid constituents, distributing them to every extremity. How marvellous the chemistry of the leaves and the aërial adaptation of the stomata. To say that all these things come by chance, or by such chance as is no chance at all, viz., "natural selection," is an insult to one's understanding.

Mr. Reynolds well says:-

"It is absolutely and for ever inconceivable that carbon, hydrogen, and nitrogen, should be otherwise than indifferent as to their position and motion, past, present, or future. Are we, 'the cunningest of Nature's clocks,' to believe that there is no intelligence at the heart of things? Are we to set our time as if it were more philosophical to regard unconscious, unintelligent, energies, as wise creators and intelligent guides, than to have faith in God? We will not thus sell ourselves for nought" (p. 122).

Still more remarkable are the means by which the plant succeeds in supplying its needs, sometimes by what we may call legitimate means, sometimes at the expense of its neighbours. The roots prolong themselves in search of water, or attracted, as it might almost seem, by some marvellous instinct in following up the scent of their appropriate nourishment.

A writer in the Gardener's Chronicle (Jan. 18th, 1873) says:—

"I had some horse-radish growing near a pump, and in taking some up to-day, I found a root had grown 9 feet in length down the well." The editor remarks, "A 9-feet run in search of a suitable larder must be a rare feat, even for a horse-radish root."

It almost revolts against our moral sense to watch the contrivances seen in the pitcher-plants for betraying their prey and securing for themselves a supply of animal food; to attribute these to the plants themselves would be to endow them with a high degree indeed of wisdom and intelligence; but what shall we say of their selfishness? That it is emblematic? The modest-looking and unpretending sundew (Drosera) not only entraps, but, I think, poisons her victims.

The apparently voluntary motions of the twining plants,

and the thickening and strengthening of the coil when adhesion is secured, also hold out to us striking exhibitions of creative skill. Indeed, the world is full of wonders of which the explanation is wanting, if the supernatural is ignored.

The leaves seem to enjoy the light of the sun, and certainly the delicate leaves of some tropical plants bend their surfaces so as they may best catch its rays. This tendency has been attributed also to some flowers, and is immortalised by the poet:—

"The heart that has truly loved never forgets,
But as truly loves on to the close,
As the sunflower turns on her god when he sets
The same look which she turn'd when he rose,"

It is quite possible that our "Scientists," who delight in destroying the poetry of nature, may succeed in finding some mechanical reason for this; but I think they cannot so explain

the remedial expedients that we next notice.

For instance, the gale in October last broke in half a large elm of mine, and I then discovered that the upper portion, which seemed sound and flourishing, had been living, like a young spendthrift, at the expense of its decaying parent. The middle portion, from some injury, had fallen into decay, and the top had actually sent down adventitious roots, some almost as thick as my finger, to feed upon the rotten portion, making their way between the bark and the wood for 15 feet or 20 feet.*

These adventitious roots present, in the tropical plants, strange vagaries. A plant of *Vanilla* in my hot-house flourishes by their means, and has sent down long roots into the soil on the opposite side of the house, though the original stars has suite with and array.

stem has quite withered away.

It is a matter full of interest to behold the sensitive plant fold and droop its leaves in regular succession as the shock is

communicated from one part of the plant to another.

We watch something which is quite beyond our present powers of explanation; for we do not imagine for a moment that the plant has any nervous system through which feeling could be communicated: nevertheless, in the marvellous adaptation of things which we call Nature, we have before us an instance of the typical unity impressed on the creatures. There is a sort of feeling after the endowment of a higher order of creation. It is a perilous ascent, however, and if the plant

^{*} Compare my Contrast between Crystallisation and Life, p. 28 (the woodcut). Second edition.

really had sense it might have been shown in divesting itself of the capacity of suffering!

If it be said there is no capacity for suffering, which I freely grant, then of what advantage to the plant can this

appearance of shrinking sensibility really be?

I do not think we can arrive at an explanation without the above conception of typical unity. If nature be the manifestation of the glory of God, and if it all is, as the Duke of Argyll asserts, a Parable for our instruction, why should we not learn lessons of instruction from the sensitive plant as well as from the lilies of the field?

And the lily. Why was the lily made so beautiful, specially the lily of Palestine,—"the beautiful Hûleh lily, the flower, as I believe, mentioned by our Lord in that delightful exhortation to trust in the kind care of our Heavenly Father:—'Consider the lilies, how they grow: they toil not, they spin not; and yet I say unto you that Solomon in all his glory was not arrayed like one of these.' This lily is very large, and the three inner petals meet above and form a gorgeous canopy, such as art never approached and king never sat under, even in his utmost glory"?*

Again, I ask, why was it made so beautiful? "You are mistaken," says the Agnostic, "it made itself beautiful in order to attract attention." Then, it seems, vegetable vanity met with its reward; for the gazelles delight to feed upon them, so that they are safest among the thorns. "You can scarcely ride through the woods north of Tabor, where these lilies abound, without frightening them from their flowery

pasture."

Our Lord walked the earth with his eyes ever open to the poetry of nature. He comprehended at one glance, not the outward only, but the inner or supernatural side. The effect of this is shown in His inimitable teaching. Never man spake like this man. He knew how from man's surroundings to raise and to elevate the character of man. He could give His disciples power to tread on serpents and on scorpions, and over all the power of the enemy.† Nature has its dark as well as its flowery side. He taught us truly how to look through nature up to nature's God. I am tempted to transgress the limits of my paper, and say something about the disseverance of education from religion, but I forbear; only this I will say, that all the great achievements of the mind of man, whether in letters or art, whether in poetry or painting,

^{*} Thompson, The Land and the Book, p. 256.

have been ennobled and in a certain sense directed by that view of nature which gives us to see it as a wondrous book spread out for our instruction,—a parable full of meaning

inspired by the mind of its Author.

In the very formation of language, if we believe our revelation, we find that the mind of man was drawn out by the Creator in connexion with the study of His works (Gen. ii.). But how great is our ignorance, even yet, of Nature! According to the Chinese, the formation of writing began with the veryillustrious Fou-hé, whose virtue united heaven and earth. He lifted up his eyes on high and saw figures (wên) from which he gained instruction, and he lowered them to the earth, and beheld models to imitate on the earth.

He then invented writing according to six rules, the first of

which was to design the form.

The characters for sun and moon belong to this form, and it is by figuring the form or the body of the sun and moon that they were represented in ancient writing (Kou-wên).*

Afterwards follow figurative and curious metaphorical and other resemblances. Such, in its substance, must also have

been the origin of the Egyptian hieroglyphics.

But if the world had been formed by a caucus of utilitarian philosophers, with drab for its colouring and uniformitarianism for its rule, where would have been its teaching? We cannot picture to ourselves a Positivist writing Shakspeare, still less could we believe in a government of Agnostics having sound principles of statesmanship. Not knowing God in nature and in Providence, they neither can know their own nature nor that of other men. "The negation of God" is a worm at the root of all beneficial legislation.

May England be preserved from, and France be delivered

from, such guidance!

CONCLUSION.

I shall have failed in my special object in this paper if I do not carry the conviction of my readers with me that the nature of the Agnostic,—his idiosyncracy, if you will,—must be studied by those physicians who would bring health to his soul. It is a very familiar observation that a man convinced against his will is not converted after all. Even an animal may be driven to a flowing well of purest water, but cannot

^{*} Essai sur l'Origine et la Formation similaire des Ecritures figuratives Chinoises et Egyptiennes, (p. 9). Pautier, Paris.

be compelled to drink. We all of us partake of one nature; in some tending more to the *Agnostic*, in others more to the *superstitious* side; but to one and all, the manner of God's dealing with us is this,—"The *goodness* of God leadeth thee

to repentance."

We could not easily find a treatise more suited for use of some of these than the Book of Job. In it we find a sorely-tried and tempted man taking very much the same ground which they occupy,—speaking grievous things against God, and longing that his Adversary had written a book to answer him. This, however, the One with whom he contends does not do, but gives the tempted one instead the knowledge of Himself, and this effects what the well-intentioned speeches of his friends failed to accomplish.

Even the inspired speeches of Elihu were as powerless as are our papers at the Institute to effect a reconciliation between

Nature and Grace.

I may be pardoned, then, for saying that Mr. Reynolds does not satisfy my mind as to what is really "The Supernatural in Nature"; that the Duke of Argyll does not clear away all difficulties; and that other instructors of the people, whom it would be invidious to particularise, lead us astray into the midst of a thorny labyrinth.

I present this paper, not as a dogmatic essay, but as tending to elicit thought and discussion on the subjects treated. It would be a good work done by the Institute to give us certain definitions of the words *Nature*, *Natural*, and *Supernatural*.

So far I search for these without success.

The work of Mr. Reynolds I have ventured to criticise in a friendly spirit, and it will have been seen that I think it is one highly interesting to those who agree with the author; but his "verification by free use of science" has led him into errors which I have attempted to point out for the benefit of others who may be inclined to pursue the same adventurous path.

A discussion of a general character took place upon the paper (which was read before being finally arranged), in which Mr. Enmore Jones, the Rev. J. Fisher, D.D., Mr. W. Griffith, Mr. G. Wise, and the Chairman, took part. The following communication was also read from the Rev. Canon Saumarez Smith, Principal of St. Aidan's Theological College, Birkenhead:—

4th March, 1882.

* * Mr. Howard's paper is interesting and suggestive, and will doubtless "tend to elicit thought and discussion."

One leading idea which underlies a good deal of what Mr. Howard says is the too often neglected axiom of all philosophical argumentation, viz., that Faith is a necessary instrument of true Science. For "science," in its com-

pletest sense, includes "metaphysics" as well as "physics"; the psychologist's reflective and introspective work, as well as the physicist's observational and inductive work; the problems of the "ethical," in addition to those of the "material," sphere of investigation.

Faith postulates the supra- (or super-) natural, as the starting-point of knowledge. "In the beginning, God."

And study and experience confirm the reasonableness of this postulate, For "physical" phenomena lead up to an acknowledged mystery, wherein force and motion have their hidden source. "Laws of nature" (so far as discoverable by man) still point to a region beyond (supra) and above (super) human observation. Mental analysis indicates the supremacy of will and intelligence over mere matter. Moral emotions irresistibly suggest the ideas of a righteous supreme power, and of human responsibility and dependence.

All these conclusions confirm both a union and an antithesis between the natural world (i.e., the Kosmos as man can know and deal with it) and the supra-natural (i.e., the unknown regions beyond the reach of man's "natural" observation).

A belief in causa causans is unquestionably reasonable, and a belief in this "cause" as personal and eternal can be shown, both by intuitive and logical considerations, to be well grounded.

But does not Mr. Howard in his paper somewhat ignore the extent to which men's reasoning and moral faculties may be employed in the investigation of the "supernatural," apart from Scriptural revelation? May we not, should we not, do something besides commending the Bible to the acceptance of the "Agnostic" (§ IV.)? May we not, eg. (in order to prepare the way for that acceptance), argue in behalf of philosophic "dualism" versus (the now fashionable) "monism," and show that the scientist who attempts by a "double aspect" theory (i.e., by the theory that all things may be looked upon "objectively" and "subjectively," but that mind and matter are not essentially distinct) to evade the plain and insurmountable distinction between mind and matter, is unscientific?

Mr. Howard states that the fall of man has rendered men "sensual, carnal, and with all his powerful intellect incapable, till renewed, of communion with God" (end of § III.).

To what extent can this incapability be predicated?

On the last page but one he says "the mind of man was drawn out by the Creator in connexion with the study of his works" (Gen. ii.). Does he mean us to infer that, after the fall, all such education of men's mental faculties was rendered impossible?

I put these questions, not, of course, in opposition to Mr. Howard's advocacy of the *Biblical* revelation being the most necessary and the most suitable for men, but in order to suggest that *philosophical* reasoning, honestly and candidly pursued, may in some cases, perhaps, prove a bridge over which the Agnostic may pass from his region of negation or hesitation as to the "supernatural," into that province of reasonable faith where the

believer finds "natural science" to be an outer court within which is a Holier Place, and an inner Shrine, where the glory of the "supernatural" I AM shines upon each humble worshipper, harmonising the "spiritual" with the "natural," and making things temporal a pathway to the apperception and enjoyment of things eternal.

In the "philosophical reasoning," however, to which I have alluded, the Biblical records (apart from acknowledgment of religious authority assigned to them) should have their due weight, and not be ignored as a considerable factor in the problem handled by the philosophizer.

We, as Christian believers, arguing with sceptical opponents, who profess to be scientific and philosophical, must insist upon all the facts of human nature and history being taken into account, before a man pretends to say, either that there is nothing supernatural, or that the supernatural is entirely unknowable.

The Author in replying to the foregoing writes :-

I think Canon Saumarez Smith's letter most valuable and important, and that it expresses my "underlying ideas" with much more perspicuity and in better language than I could command.

As regards the question whether we ought not to "do something besides commending the Bible to the acceptance of the agnostic," the writer misunderstands me. My real views are these:—

In the discourse of "the beloved Paul" (as Luther calls him) to the wisdom-sceking Greeks at Athens, I find this Apostle following out to the fullest extent the plan of availing himself of the amount of knowledge already possessed by his auditors; whilst he corrects their errors, by irresistible reasonings founded on propositions of natural religion admitted by both parties. This sermon is to me full of the most practical instruction and the deepest philosophy. No doubt our missionaries often follow this example, for instance, in dealing with the Chinese mind. But in the compass of the address there is no reference to the Scriptures, of which we must suppose the Athenians to have been wholly ignorant.

But as an Apostle he bears testimony to one fact, to which he claims not only their attention, but if I may so speak, their submission as to a pledge * which God has set before the mind + of all men, of the full accomplishment of the work of his Son, and his consequent purposes toward mankind.

He does not leave them in the possession merely of improved natural religion, but instructs them in Christian truth.

After all, his success at Athens was limited to a small number of converts, and the rest of his hearers were unaffected. Not many wise men were chosen. It needs something to stir more profoundly the depths of the being

^{*} $\pi i \sigma \tau \iota_{\mathcal{C}}$, an assurance, pledge of good faith; a means of persuasion. See Greek Lex., Liddell and Scott, ii., 1, 2.

[†] παρίστημι, see as above.

of man, than the mere correction of his intellectual errors. If I may say so, the polarity of the human spirit must be reversed.

Luther says, that whilst he lived a holy and blameless monk, his feelings toward God were those of hatred. "I secretly and in earnest felt incensed against Him."

It scarcely needs to read between the lines of autobiographies of agnostics (one celebrated name occurs to me) to see that this is the real state of things which has to be set right; and which is set right (in a few such cases as at Athens), by testimony rather to the Word of God made flesh than to the word of God printed, except as far as the latter is an instrument in leading to the knowledge of the former.

Canon Smith inquires, "to what extent can the incapability of communion with God be predicated?"

To this, I answer that apprehension of God is one thing, communion with God is another. I believe in the existence of agnosticism, but I do not, as at present informed, believe in that of atheism. The devils believe and tremble—the atheist believes and hates.*

The reversed attitude of the spirit—the reversed polarity—is beautifully shown in Heb. xi. He that cometh to God must believe that He exists, and that He becomes a rewarder of those that diligently seek Him. I suppose this to be a truth applicable to all time.

This being presupposed, the education of men's faculties is not only rendered possible, but is the subject of direct scriptural teaching. Did not Linnæus take for his motto, "the works of the Lord are great, sought out of all them that have pleasure therein." My attention was early directed by my father to a passage in perhaps the earliest book in the Bible, where Elihu commends to the attention of Job "the balancing of the clouds, the wondrous works of Him that is perfect in knowledge." It would be strange that I should disparage science, when I remember that the author of the "Essay on the Modifications of Clouds"+ (in which he attached the current names to the different shapes manifest in this world of study) delighted in teaching me what he knew of electricity, and watched with the feeling of a devout Christian its changeful effects as there displayed for our admiration.

With the last sentences of the letter I most entirely concur. I am surprised that our instructors do not more frequently adopt the course indicated, and grasp with firmness this many-headed and variously-named nettle, from whose poisonous touch so many are suffering.

My sympathies go with every effort to uproot it altogether; but we must remember that the roots strike very deep, and that the task is not an easy one. I must, however, again thank Canon Saumarez Smith for his contribution of many valuable thoughts, tending towards this much to be desired result.

^{*} See Recollections of William Hone, thirty years an atheist, afterwards a happy Christian, lately published.

† By my Father, Luke Howard, F.R.S. (first published in 1803).