

- ART. IV.—1. *L'Eglise et la Société Chrétienne en 1861.* Par M. GUIZOT (Paris, 1861). Chap. IV. *Du Surnaturel.*
2. *The Supernatural in relation to the Natural.* By the Rev. JAS. M'COSH, LL.D. Cambridge: 1861.
3. *Nature and the Supernatural as together constituting the One System of God.* By HORACE BUSHNELL, D.D. Edinburgh: 1860.
4. *Beginning Life. Chapters for Young Men on Religion, Study, and Business.* By JOHN TULLOCH, D.D., Principal of St. Mary's, St. Andrews. Chap. III. *The Supernatural.* Edinburgh.
5. *Essay on Miracles as Evidences of Christianity.* By H. L. MANSEL, B.D. *Aids to Faith.* Edited by W. THOMSON, D.D., Lord Bishop of Gloucester and Bristol. London: 1861.
6. *On the Various Contrivances by which British and Foreign Orchids are Fertilized by Insects.* By CH. DARWIN, F.R.S. London: 1862.

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 Christian, but of all positive religion whatever. The questions then which we have now asked are 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 perplexities of men are traceable to obscurity of thought hiding and breeding under obscurity of language. In the treatises which we have placed at the head of this article, 'the Supernatural' is a term employed often in different, and sometimes in contradictory, senses. It is difficult to make out whether M. Guizot himself means to identify belief in the supernatural with belief in the existence of a God, or with belief in a particular mode of Divine action. But these are ideas quite separable and distinct. There may be some men who disbelieve in the supernatural only because they are absolute atheists; but it is certain that there are others who have great difficulty in believing in the supernatural who are not atheists. What they doubt

* *L'Eglise*, &c., ch. iv. p. 19.

or deny is, not that God exists, but that He ever acts, or perhaps can act, unless in and through what they call the 'Laws of Nature.' M. Guizot, indeed, tells us that 'God is the Supernatural in a Person.' But this is a rhetorical figure rather than a definition. He may, indeed, contend that it is inconsistent to believe in a God, and yet to disbelieve in the supernatural; but he must admit, and indeed does admit, that such inconsistency is found in fact.

As for Dr. M'Cosh, generally a most clear and able writer, we arrive at the 146th page of a treatise on the 'Supernatural in relations to the Natural,' before we come to the announcement that 'this is the proper place for a statement as to the phrases employed in such discussions.' We must add, that the statement which follows is by no means clear or definite. Dr. M'Cosh frequently uses 'the supernatural' as synonymous with the 'superhuman.' But of course this is not the sense in which anyone can have any difficulty in believing in it. The powers and works of nature are all superhuman—more than man can account for in their origin—more than he can resist in their energy—more than he can understand in their effects. This, then, cannot be the sense in which so many minds find it hard to accept the supernatural; nor can it be the sense in which others cling to it as of the very essence of their religious faith. What then is that other sense in which the difficulty arises? Perhaps we shall best find it by seeking the idea which is competing with it, and by which it has been displaced. It is the 'natural' which has been casting out the supernatural—the idea of natural law, the universal reign of a fixed order of things. This idea is a product of that immense development of the physical sciences which is characteristic of our time. We cannot read a periodical, or go into a lecture-room, without hearing it expressed. Sometimes, though perhaps not in the majority of cases, it is stated with accuracy, and with due recognition of the limits within which 'law' can be said to comprehend the phenomena of the world. More often it is expressed in language vague and ambitious, as if the ticketing and orderly assortment of external facts were in the nature of explanations, or were the highest truths which we have power to reach. And herein we see both the result for which Bacon laboured, and the danger against which Bacon prayed. It has been a glorious result of a right method in the study of nature, that with the increase of knowledge the 'human family has been endowed with new mercies.' But every now and then, for a time at least, from 'the unlocking of the gates of sense, and the kindling of a greater natural

‘light, incredulity and intellectual night *have* arisen in our minds.’

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 ‘super-natural’ 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 to a man thoroughly possessed of the idea of natural law as universal, nothing ever could be admitted as supernatural; because on seeing any fact, however new, marvellous, or incomprehensible, he might escape into the conclusion that it was the result of some natural law of which he had before been ignorant. No one will deny that, in respect to the vast majority of all new and marvellous phenomena, this would be the true and reasonable conclusion. It is not the conclusion of pride, but of humility of mind. Seeing the boundless extent of our ignorance of the natural laws which regulate so many of the phenomena around us, and still more so many of the phenomena within us, nothing can be more reasonable than to conclude, when we see something which is to us a wonder, that somehow, if we only knew how, it is ‘all right’—all according to the constitution and course of nature. But then, to justify this conclusion, we must understand ‘nature’ in the largest sense,—as including all that is

‘In the round world, and in the living air,
And the blue sky, and in the mind of man.’

We must understand it as including every agency which we see entering, or can conceive from analogy as capable of entering, into the causation of the world. First and foremost among these is the agency of our own mind and will. Yet strange to say, all reference to this agency is often tacitly excluded when we speak of the laws of nature. One of our most distinguished living teachers of physical science began, the other day, a course of lectures on the phenomena of Heat by a rapid statement of the modern doctrine of the correlation of forces—how the one was convertible into the other—how one arose out of the other—how none could be evolved except from some other as a preexisting source. ‘Thus,’ said the lecturer, ‘we see there is no such thing as spontaneousness in nature.’

What!—not in the lecturer himself? Was there no ‘spontaneousness’ in his choice of words—in his selection of materials—in his orderly arrangement of experiments with a view to the exhibition of particular results? It was not, we believe, that the lecturer was denying this, but simply that he did not think of it as within his field of view. His own mind and will dealt with the ‘laws of nature,’ but it did not occur to him as forming part of those laws, or, in the same sense, as subject to them. Does man, then, not belong to ‘Nature’? Is he above it—or merely separate from it, or a violation of it? Is he super-natural? If so, has he any difficulty in believing in himself? Of course not. Self-consciousness is the one truth, in the light of which all other truths are known. ‘Cogito, ergo sum,’ or ‘volo, ergo sum’—this is the one conclusion which we cannot doubt, unless reason disbelieves herself. Why, then, is their action not habitually included among the ‘laws of nature’? Because a fallacy is getting hold upon us from a want of definition in the use of terms. ‘Nature’ is being used in the narrow sense of physical nature; and the whole world in which we ourselves live, and move, and have our being is excluded from it. But these selves of ours do belong to ‘Nature.’ If we are ever to understand the difficulties in the way of believing in the supernatural, we must first keep clearly in view what we are to understand as included in the ‘natural.’ Let us never forget, then, that the agency of man is of all others the most natural—the one with which we are most familiar—the only one, in fact, which we can be said, even in any measure, to understand. When any wonderful event can be referred to the contrivance or ingenuity of man, it is thereby at once removed from the sphere of the ‘supernatural,’ as ordinarily understood.

It must be remembered, however, that we are now only seeking a clear definition of terms; and that provided this other meaning be clearly agreed upon, the mind and will of man may be considered as separate from ‘nature,’ and belonging to the supernatural. We have placed among the works to be noticed in this article the treatise on ‘Nature and the Supernatural,’ by Dr. Bushnell, an American clergyman. Though its effectiveness is impaired, in our opinion, by some speculations of a very fanciful kind, it is a work of great ability, full of thought which is at once true and ingenious. Dr. Bushnell says:—‘That ‘is supernatural, whatever it be, that is either not in the ‘chain of natural cause and effect, or which acts on the chain ‘of cause and effect in nature, from without the chain.’ Again:—‘If the processes, combinations, and results of our

‘system of nature are interrupted or varied by the action, whether of God, or angels, or men, so as to bring to pass what would not come to pass in it by its own internal action, under the laws of mere cause and effect, such variations are in like manner supernatural.’ We have no objection to this definition of the supernatural, except that it rests upon a limitation of the terms ‘nature’ and ‘natural,’ which is very much at variance with the sense in which they are commonly understood. There is indeed a distinction which finds its expression in common language between the works of man and the works of nature. A honeycomb, for example, would be called a work of nature, but not a steam-engine. This distinction is founded on a true perception of the fact that the mind and will of man belong to an order of existence very different from physical laws, and very different also from the fixed and narrow instincts of the lower animals. It is a distinction bearing witness to the universal consciousness that the mind of man has within it something of a truly creative energy and force — that we are ‘fellow-workers with God,’ and have been in a measure ‘made partakers of the Divine nature.’ But in that larger and wider sense in which we are here speaking of the natural, it contains within it the whole phenomena of man’s intellectual and spiritual nature, as part, and the most familiar of all parts, of the visible system of things. In all ordinary senses of the term, man and his doings belong to the natural, as distinguished from the supernatural.

We are thus coming nearer to some precise understanding of what the ‘supernatural’ may be supposed to mean. But before we proceed, there is another question which must be answered — What is the relation in which the agency of man stands to the physical laws of nature? The answer, in part at least, is plain. His power in respect to those laws extends only first to their discovery and ascertainment, and then to their use. He can establish none: he can suspend none. All he can do is to guide, in a limited degree, the mutual action and reaction of the laws amongst each other. They are the tools with which he works — they are the instruments of his will. In all he does or can do he must employ them. His ability to use them is limited both by his want of knowledge and by his want of power. The more he knows of them, the more largely he can employ them, and make them ministers of his purposes. This, as a general rule, is true; but it is subject to the second limitation we have pointed out. Man already knows far more than he has power to convert to use. It is a true observation of Sir George Lewis that astronomy, for example, in its higher branches, has an interest almost purely scientific. It reveals to our knowledge

perhaps the grandest and most sublime of the physical laws of nature. But a much smaller amount of knowledge would suffice for the only practical applications which we have yet been able to make of these laws to our own use. Still, that knowledge has a reflex influence on our knowledge of ourselves, of our powers, and of the relations which subsist between the constitution of our own minds and the constitution of the universe. And in other spheres of inquiry, advancing knowledge of physical laws has been constantly accompanied with advancing power over the physical world. It has enabled us to do a thousand things, any one of which, a few generations ago, would have been considered supernatural. The same lecturer who told his audience that there was nothing spontaneous 'in nature' proceeded, by virtue of his own knowledge of natural laws, and by his selecting and combining power, to present an endless series of wonderful phenomena — such as ice frozen in contact with red-hot crucibles — not belonging to the ordinary course of nature, and which, if exhibited a few centuries ago, would, beyond all doubt, have subjected the lecturer on Heat to painful experience of that condition of matter. If the progress of discovery is as rapid during the next 400 years as it has been during the last 400 years, men will be able to do many things which, in like manner, would now appear to be 'super-natural.' There is no difficulty in conceiving how a complete knowledge of all natural laws would give, if not complete power, at least degrees of power immensely greater than those which we now possess. Power of this kind then, however great in degree, clearly does not answer that idea of the 'supernatural' which so many reject as inconceivable. What, then, is that idea? Have we not traced it to its den at last? By 'supernatural' power, do we not mean power independent of the use of means, as distinguished from power depending on knowledge—even infinite knowledge—of the means proper to be employed?

This is the sense — probably the only sense — in which the supernatural is, to many minds, so difficult of belief. No man can have any difficulty in believing there are natural laws of which he is ignorant; nor in conceiving that there may be Beings who do know them, and can use them, even as he himself now uses the few laws with which he is acquainted. The real difficulty lies in the idea of will exercised without the use of means — not in the exercise of will through means which are beyond our knowledge.

But have we any right to say that belief in this is essential to all religion? If we have not, then it is only putting, as so

many other hasty sayings do put, additional difficulties in the way of religion. The relation in which God stands to those rules of His government which are called 'laws,' is, of course, an inscrutable mystery to us. But those who believe that His will does govern the world, must believe that ordinarily at least, He does govern it by the choice and use of means. Nor have we any certain reason to believe that He ever acts otherwise. Extraordinary manifestations of His will — signs and wonders — may be wrought, for ought we know, by similar instrumentality — only by the selection and use of laws of which man knows and can know nothing, and which, if he did know, he could not employ.

Here, then, we come upon the question of miracles — how we understand them? what we would define them to be? The common idea of a miracle is, a suspension or violation of the laws of nature. This is a definition which places the essence of a miracle in a particular method of operation. Dr. M'Cosh's definition passes this by altogether, and dwells only on the agency by which, and the purpose for which, a wonderful work is wrought. 'We would confine the word miracle,' he says, 'to those events which were wrought in our world as a sign or proof of God making a supernatural interposition, or a revelation to man.' This definition is defective in so far as it uses the word 'supernatural,' which, as we have seen, itself requires definition as much as miracle. But from the general context and many individual passages in his treatise it is sufficiently clear that the two conditions essential in Dr. M'Cosh's view of a miracle, are that they are wrought by a Divine power for a Divine purpose, and are of a nature such as could not be wrought by merely human contrivance. In this sense a miracle means a superhuman work. But we have already shown that 'superhuman' must not be confounded with 'supernatural.' This definition of a miracle does not exclude the idea of God working by the use of means, provided they are such means as are out of human reach. Indeed in an important note (p. 149.), Dr. M'Cosh seems to admit that miracles are not to be considered 'as against nature' in any other sense than that in which 'one natural agent may be against another — as water may counteract fire.' Mr. Mansel, in his able 'Essay on Miracles,' adopts the word 'superhuman' as the most accurate expression of his meaning. He says, 'A superhuman authority needs to be substantiated by superhuman evidence; *and what is superhuman is miraculous.*'* Imperfect as we have seen this definition to be,

* 'Aids to Faith,' p. 35. In another passage (p. 21.) Mr. Mansel says that in respect to the great majority of the miracles recorded in

it is most important to observe that it does not necessarily involve the idea of a 'violation of the laws of nature.' It does not involve the idea of the exercise of will apart from the use of means. It does not involve, therefore, that idea which appears to many so difficult of conception. It simply supposes, without any attempt to fathom the relation in which God stands to His own 'laws,' that out of His infinite knowledge of these laws, or of His infinite power of making them the instruments of His will, He may and He does use them for extraordinary indications of His presence.

The reluctance to admit as belonging to the domain of nature any special exertion of Divine power for special purposes, stands really in very close relationship to the converse notion, that where the operation of natural causes can be clearly traced, there the exertion of Divine power and will is rendered less certain and less convincing. This is the idea which lies at the root of Gibbon's famous chapters on the spread of Christianity. He labours to prove that it was due to natural causes. In proving this he evidently thinks he is disposing of the notion that Christianity spread by Divine power; whereas he only succeeds in pointing out some of the means which were employed to effect a Divine purpose. In like manner, the preservation of the Jews as a distinct people during so many centuries of complete dispersion, is a fact standing absolutely by itself in the history of the world. It is at variance with all other experience of the laws which govern the amalgamation with each other of different families of the human race. It is the result, nevertheless, of special laws, overruling those in ordinary operation. It has been effected by the use of means. Those means have been superhuman—they have been beyond human contrivance and arrangement. But they belong to the region of the 'natural.' They belong to it not the less, but all the more, because in their concatenation and arrangement they indicate the purpose of a living Will seeking and effecting the fulfilment of its designs. This is the manner after which our own living wills in their little sphere effect their little objects. Is it difficult to believe that after the same manner also the Divine Will, of which ours is the image only, works and effects its purpose?

Our own experience shows that the universal reign of law is perfectly consistent with a power of making those laws subservient to design—even when the knowledge of them is but

Scripture, 'the supernatural element appears . . . in the exercise of 'a personal power transcending the limits of man's will. They are 'not so much *supermaterial*, as *superhuman*.'

slight, and the power over them slighter still. How much more easy, how much more natural, to conceive that the same universality is compatible with the exercise of that Supreme Will before which all are known, and to which all are servants! 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 true enough. In this sense the difficulty of believing in the ‘supernatural,’ and the difficulty of believing in pure Theism, is one and the same. But if he means that it is necessary to religion to believe in even the occasional ‘violation of law,’—if he means that without such belief, signs and wonders cease to be evidences of Divine power,—then he announces a proposition which we conceive to be unsound. There is nothing in religion incompatible with the belief that all exercises of God’s power, whether ordinary or extraordinary, are effected through the instrumentality of means—that is to say, by the instrumentality of natural laws brought out, as it were, and used for a Divine purpose. To believe in the existence of miracles we must indeed believe in the ‘super-human’ and in the ‘supermaterial.’ 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 to recognise in the whole laws and economy of nature. Her whole aspect, as Dr. Tulloch says, ‘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 own 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?’

This view of miracles is well expressed in the excellent little work of Principal Tulloch, from which we have just quoted.

‘The stoutest advocate of interference can mean nothing more than that the Supreme Will has so moved the *hidden springs of nature* that a new issue arises on given circumstances. The ordinary issue is supplanted by a higher issue. The essential facts before us are a

* Tulloch, ‘Beginning Life,’ p. 29.

certain set of phenomena, and a Higher Will moving them. How moving them? is a question for human definition; but the answer to which does not and cannot affect the Divine meaning of the change. Yet when we reflect that this Higher Will is everywhere reason and wisdom, it seems a juster as well as a more comprehensive view to regard it as operating by subordination and evolution rather than by "interference" or "violation." According to this view the idea of law is so far from being contravened by the Christian miracles, that it is taken up by them and made their very basis. They are the expression of a Higher Law, working out its wise ends among the lower and ordinary sequences of life and history. These ordinary sequences represent nature—nature, however, not as an immutable fate, but a plastic medium through which a Higher Voice and Will are ever addressing us, and which, therefore, may be wrought into new issues when the Voice has a new message, and the Will a special purpose for us.' (*Tulloch, Beginning Life*, p. 85-6.)

Yet so deeply ingrained in the popular theology is the idea that miracles, to be miracles at all, must be performed by some violation of the laws of nature, that the opposite idea of miracles being performed by the use of means is regarded by many with jealousy and suspicion. Strange that it should be thought the safest course to separate as sharply and as widely as we can between what we are called upon to believe in religion, and what we are able to trace or understand in nature! With what heart can those who cherish this frame of mind follow the great argument of Butler? All the steps of that argument—by far the greatest in the whole range of Christian philosophy—are founded on the opposite belief, that all the truths, and not less all the difficulties of religion, have their type and likeness in the 'constitution and course of nature.' As we follow that reasoning, so simple and so profound, we find our eyes ever opening to some new interpretation of familiar facts, and recognising among the curious things of earth, one after another of the laws which, when told us of the spiritual world, seem so perplexing and so hard to accept or understand. To ask how much farther this argument of the Analogy is capable of illustration and development, is to ask how much more we shall know of 'nature.' Like all central truths its ramifications are infinite—as infinite as the appearance of variety, and as pervading as the sense of oneness in the universe of God.

But what of Revelation? Are its history and doctrines incompatible with the belief that God uniformly acts through the use of means? The narrative of creation is given to us in abstract only, and is told in two different forms, both having for their special object the presenting to our conception the personal agency of a living God. Yet this narrative indicates,

however slightly, that room is left for the idea of a material process. 'Out of the dust of the ground;' that is, out of the ordinary elements of nature, was that body formed which is still upheld and perpetuated by organic forces acting under the rules of law. Nothing which science has discovered, or can discover, is capable of traversing that simple narrative. On this subject M. Guizot lays great stress, as many others do, on what he calls the 'supernatural' in creation, as distinguished from the operations now visible in nature. 'De quelle façon et par quelle puissance le genre humain a-t-il commencé sur la terre?' In reply to this question, he proceeds to argue that man must have been the result either of mere material forces, or of a supernatural power exterior to, and superior to matter. Spontaneous generation, he argues, supposing it to exist at all, can give birth only to infant beings—to the first hours, and feeblest forms, of nascent life. But man—the human pair—must evidently have been complete from the first; created in the full possession of their powers and faculties. 'C'est à cette condition seulement qu'en apparaissant pour la première fois sur la terre l'homme aurait pu y vivre—s'y perpétuer, et y fonder le genre humain. Evidemment l'autre origine du genre humain est seul admissible, seul possible. Le fait surnaturel de la création explique seul la première apparition de l'homme ici-bas.' This is a common, but, as it seems to us, not a very safe argument. If the 'supernatural'—that is to say, the superhuman and the superphysical—cannot be found nearer to us than this, we fear it will not be found at all. It is very difficult to free ourselves from this notion that by going far enough back, we can 'find out God' in some sense in which we cannot find Him now. To accept the primeval narrative of the Jewish Scriptures as coming from authority, and as bringing before us the personal agency of the Creator,—this is one thing. To argue that no other origin for the first parents of the human race is conceivable than that they were moulded perfect, without the instrumentality of any means,—this is quite another thing. The various hypotheses of development, of which Darwin's theory is only a new and special version, are at least a method of escape from the logical puzzle which M. Guizot puts. These hypotheses are indeed utterly destitute of proof; and in the form which they have as yet assumed, it may justly be said that they involve such violations of, or departures from, all that we know of the existing order of things, as to deprive them absolutely of all scientific basis. But the close and mysterious relations between the mere animal frame of man, and that of the lower animals, does render the idea of a

common relationship by descent at least conceivable. Indeed, in proportion as it seems to approach nearer to processes of which we have some knowledge, it is, in a degree, more conceivable than creation without any process,—of which we have no knowledge and can have no conception.

But whatever may have been the method or process of creation, it is creation still. If it were proved to-morrow that the first man was 'born' from some preexisting form of life, it would still be true that such a birth must have been, in every sense of the word, a new creation. It would still be as true that God formed him 'out of the dust of the earth,' as it is true that He has so formed every child who is now called to answer the first question of all theologies. And we must remember that the language of Scripture nowhere draws, or seems even conscious of, the distinction which modern philosophy draws so sharply between the 'natural' and the 'supernatural.' All the operations of nature are spoken of as operations of the Divine Mind. Creation is the outward embodiment of a Divine Idea. It is in this sense, apparently, that the narrative of Genesis speaks of every plant being formed 'before it grew.' But the same language is held, not less decidedly, of every ordinary birth. 'Thine eyes did see my substance, yet being imperfect. In Thy book all my members were written which in continuance were fashioned, when as yet there were none of them.' And these words, spoken of the individual birth, have been applied not less truly to the modern idea of the Genesis of all organic life. Whatever may have been the physical or material relation between its successive forms, the ideal relation has been now clearly recognised, and reduced to scientific definition. All the members of that frame which has received its highest interpretation in man, had existed, with lower offices assigned to them, in the animals which flourished before man was born. All theories of development have been simply attempts to suggest the manner in which, or the physical process by means of which, this ideal continuity of type and pattern has been preserved. But whilst all these suggestions have been in the highest degree uncertain, some of them violently absurd, the one thing which is certain is the fact for which they endeavour to account. But what is that fact? It is one which belongs to the world of mind, not to the world of matter. When Professor Owen tells us, for example, that certain jointed bones in the whale's paddle are the same bones which in the mole enable it to burrow, which in the bat enable it to fly, and in man constitute his hand with all its wealth of functions, he does not mean that physically and actually they are the same

bones, nor that they have the same uses, nor that they ever have been, or ever can be, transferable from one kind of animal to another. He means that in a purely ideal or mental conception of the plan of all vertebrate skeletons, these bones occupy the same relative place—relative, that is, not to origin or use, but to the plan or conception of that skeleton as a whole.

Here the ‘supermaterial,’ and in this sense the supernatural, element,—that is to say, the ideal conformity and unity of conception, is the one unquestionable fact, in which we recognise directly the working of a mind with which our own has very near relations. Here, as elsewhere, we see the natural, in the largest sense, including and embodying the supernatural; the material, including the supermaterial. No possible theory, whether true or false, in respect to the physical means employed to preserve the correspondence of parts which runs through all creation can affect the certainty of that mental plan and purpose which alone makes such correspondence intelligible to us, and in which alone it may be said to exist. The two ideas,—that of a physical cause and that of a mental purpose,—are not antagonist; but the one is larger and more comprehensive than the other. Let us take a case. In many animal frames there are what have been called ‘silent members’—members which have no reference to the life or use of the animal, but only to the general pattern on which all vertebrate skeletons have been formed. Mr. Darwin, when he sees such a member in any animal, concludes with certainty that this animal is the lineal descendant by ordinary generation of some other animal in which that member was not silent but turned to use. Professor Owen, taking a larger and wider view, would say, without pretending to explain *how* its presence is to be accounted for physically, that the silent member has relation to a general purpose or plan which can be traced from the dawn of life, but which did not receive its full accomplishment until man was born. This is certain: the other is a theory. The assumed physical cause may be true or false. It is much more probably false than true; but in any case the mental purpose and design—the conformity to an abstract idea—this is certain. The relation in which created forms stand to our own mind, and to our understanding of their purpose, is the one thing which we can surely know, because it belongs to our own consciousness. It is entirely independent of any belief we may entertain, or any knowledge we may acquire, of the processes employed for the fulfilment of that purpose.

And yet we are often told, as if it were a profound philosophy, that ‘we must be very cautious how we ascribe intention to

‘nature. Things do fit into each other, no doubt, as if they were designed; but all we know about them is that these correspondences exist, and that they seem to be the result of physical laws of development and growth.’ No matter—we reply—how these correspondences have arisen, and are daily arising. The perception of them by our mind is as much a fact as the sight or touch of the things in which they appear. They may have been produced by growth—they may have been the result of a process of development,—but it is not the less the development of a mental purpose. It is the end subserved that we absolutely know. What alone is doubtful and obscure is precisely that which alone we are told is the legitimate object of our research,—viz. the means by which that end has been attained. Take one instance out of millions. The poison of a deadly snake—let us for a moment consider what this is. It is a secretion of definite chemical properties which have reference, not to the organism of the animal in which it is developed, but to the organism of another animal which it is intended to destroy. Some naturalists have a vague sort of notion that, as regards merely mechanical weapons, or organs of attack, they may be developed by use,—that legs may become longer by fast running, teeth sharper and longer by biting. Be it so: this law of growth, if it exist, is but itself an instrument whereby purpose is fulfilled. But how will this law of growth adjust a poison in one animal with such subtle knowledge of the organisation of another that the deadly virus shall in a few minutes curdle the blood, benumb the nerves, and rush in upon the citadel of life? There is but one explanation—a Mind, having minute and perfect knowledge of the structure of both, has designed the one to be capable of inflicting death upon the other. This mental purpose and resolve is the one thing which our intelligence perceives with direct and intuitive recognition. The method of creation, by means of which this purpose has been carried into effect, is utterly unknown.

Perhaps no illustration so striking of this principle was ever presented as in the astonishing volume just published by Mr. Darwin on the ‘Fertilisation of Orchids.’ It appears that the fertilisation of almost all orchids is dependent on the transport of the pollen from one flower to another by means of insects. It appears, further, that the structure of these flowers is elaborately contrived, so as to secure the certainty and effectiveness of this operation. Mr. Darwin’s work is devoted to tracing in detail what these contrivances are. To a large extent they are purely mechanical, and can be traced with as much clearness and certainty as the different parts of which a steam-engine is

composed. The complication and ingenuity of these contrivances almost exceed belief. 'Moth-traps and spring-guns set 'on these grounds,' might be the motto of the orchids. There are baits to tempt the nectar-loving lepidoptera, with rich odours exhaled at night, and lustrous colours to shine by day; there are channels of approach along which they are surely guided, so as to compel them to pass by certain spots; there are adhesive plasters nicely adjusted to fit their probosces, or to catch their brows; there are hair-triggers carefully set in their necessary path, communicating with explosive shells, which project the pollen-stalks with unerring aim upon their bodies. There are, in short, an infinitude of adjustments, for an idea of which we must refer our readers to Mr. Darwin's inimitable powers of observation and description—adjustments all contrived so as to secure the accurate conveyance of the pollen of the one flower to its precise destination in the structure of another.

Now there are two questions which present themselves when we examine such a mechanism as this. The first is, What is the use of the various parts, or their relation to each other with reference to the purpose of the whole? The second question is, How were those parts made, and out of what materials? It is the first of these questions—that is to say, the use, object, intention, or purpose of the different parts of the plant,—which Darwin sets himself instinctively to answer first; and it is this which he does answer with precision and success. The second question,—that is to say, how those parts came to be developed, and out of what 'primordial elements' they have been derived in their present shapes, and converted to their present uses?—this is a question which Darwin does also attempt to solve, but the solution of which is in the highest degree difficult and uncertain. It is curious to observe the language which this most advanced disciple of pure naturalism instinctively uses when he has to describe the complicated structure of this curious order of plants. 'Caution in ascribing intentions to nature' does not seem to occur to him as possible. Intention is the one thing which he does see, and which, when he does not see, he seeks for diligently until he finds it. He exhausts every form of words and of illustration by which intention or mental purpose can be described. 'Contrivance,'—'curious contrivance,'—'beautiful contrivance'—these are expressions which recur over and over again. We quote one sentence describing the parts of a particular species. 'The labellum is developed into a long 'nectary, *in order* to attract lepidoptera, and we shall presently 'give reasons for suspecting that the nectar is *purposely* so 'lodged that it can be sucked only slowly, *in order* to give time

‘for the curious chemical quality of the viscid matter setting ‘hard and dry.’* Nor are the words we have here quoted used in any sense different from that in which they are applicable to the works of man’s contrivance — to the instruments we use or invent for carrying into effect our own preconceived designs. On the contrary, human instruments are often selected as the aptest illustrations both of the object in view, and of the means taken to effect it. Of one particular structure Mr. Darwin says:—‘This contrivance of the guiding ridges may be compared ‘to the little instrument sometimes used for guiding a thread ‘into the eye of a needle.’ Again, referring to the precautions taken to compel the insects to come to the proper spot, in order to have the ‘pollinia’ attached to their bodies, Mr. Darwin says:—‘Thus we have the rostellum partially closing the mouth ‘of the nectary, *like a trap placed in a run for game*,— and the ‘trap so complex and perfect!’† But this is not all. The idea of special use, as the final end and controlling principle of construction, is so impressed on Mr. Darwin’s mind, that, in every detail of structure, however singular or obscure, he has absolute faith that in this lies the ultimate explanation. If an organ is largely developed, it is because some special purpose is to be fulfilled. If it is aborted or rudimentary, it is because that purpose is no longer to be subserved. In the case of another species whose structure is very singular, Mr. Darwin had great difficulty in discovering how the mechanism was meant to work, so as to effect the purpose. At last he made it out, and of the clue which led to the discovery he says:—‘The strange position ‘of the labellum perched on the summit of the column, ought to ‘have shown me that here was the place for experiment. I ‘ought to have scorned the notion that the labellum was thus ‘placed *for no good purpose*. I neglected this plain guide, and ‘for a long time completely failed to understand the flower.’‡

When we come to the second part of Mr. Darwin’s work, viz. the Homology of the Orchids, we find that the inquiry divides itself into two separate questions — first, the question what all these complicated organs are in their primitive relation to each other; and secondly, how these successive modifications have arisen, so as to fit them for new and changing uses. Now it is very remarkable that of these two questions, that which may be called the most abstract and transcendental — the most nearly related to the supernatural and supermaterial — is again precisely the one which Darwin solves best and most clearly. We have already seen how well he solves the first

* P. 29.

† P. 30.

‡ P. 262.

question — What is the use and intention of these various parts? The next question is, What are these parts in their primal order and conception? The answer is, that they are members of a numerical group, having a definite and still traceable order of symmetrical arrangement. They are expressions of a numerical idea, as so many other things — perhaps as all things — of beauty are. Mr. Darwin gives a diagram, showing the primordial or archetypal arrangement of Threes within Threes, out of which all the strange and marvellous forms of the orchids have been developed, and to which, by careful counting and dissection, they can still be ideally reduced. But when we come to the last question — By what process of natural consequence have these elementary organs of Three within Three been developed into so many various forms of beauty, and made to subserve so many curious and ingenious designs? — we find nothing but the vaguest and most unsatisfactory conjectures. We can only give one instance, as an example. There is a Madagascar orchis — the '*Angræcum sesquipedale*' — with an immensely long and deep nectary. How did such an extraordinary organ come to be developed? Mr. Darwin's explanation is this. The pollen of this flower can only be removed by the proboscis of some very large moths trying to get at the nectar at the bottom of the vessel. The moths with the longest probosces would do this most effectually; they would be rewarded for their long noses by getting the most nectar; whilst, on the other hand, the flowers with the deepest nectaries would be the best fertilised by the largest moths preferring them. Consequently, the deepest-nectaryed orchids, and the longest-nosed moths, would each confer on the other a great advantage in the 'battle of life.' This would tend to their respective perpetuation, and to the constant lengthening of nectaries and of noses. But the passage is so curious and characteristic, that we give Mr. Darwin's own words: —

'As certain moths of Madagascar became larger, through natural selection in relation to their general conditions of life, either in the larval or mature state, or as the proboscis alone was lengthened to obtain honey from the *Angræcum*, those individual plants of the *Angræcum* which had the longest nectaries (and the nectary varies much in length in some orchids), and which, consequently, compelled the moths to insert their probosces up to the very base, would be best fertilised. These plants would yield most seed, and the seedlings would generally inherit longer nectaries; and so it would be in successive generations of the plant and moth. Thus it would appear that there has been a race in gaining length between the nectary of the *Angræcum* and the proboscis of certain moths; but the *Angræcum* has triumphed, for it flourishes and abounds in the forests of Mada-

gascar, and still troubles each moth to insert its proboscis as far as possible in order to drain the last drop of nectar. . . . We can thus,' says Mr. Darwin, '*partially* understand how the astonishing length of the nectary may have been acquired by successive modifications.'

It is indeed but a 'partial' understanding. How different from the clearness and the certainty with which Mr. Darwin is able to explain to us the use and intention of the various organs! or the primal idea of numerical order and arrangement which governs the whole structure of the flower! It is the same through all nature. Purpose and intention, or ideas of order based on numerical relations, are what meet us at every turn, and are more or less readily recognised by our own intelligence as corresponding to conceptions familiar to our own minds. We know, too, that these purposes and ideas are not our own, but the ideas and purposes of Another — of One whose manifestations are indeed superhuman and supermaterial, but are not 'supernatural,' in the sense of being strange to nature, or in violation of it.

The truth is, that there is no such distinction between what we find in nature, and what we are called upon to believe in religion, as that which men pretend to draw between the natural and the supernatural. It is a distinction purely artificial, arbitrary, unreal. Nature presents to our intelligence, the more clearly the more we search her, the designs, ideas, and intentions of some

'Living Will that shall endure,
When all that seems shall suffer shock.'

Religion presents to us that same Will, not only working equally through the use of means, but using means which are strictly analogous — referable to the same general principles — and which are constantly appealed to as of a sort which we ought to be able to appreciate, because we ourselves are already familiar with the like. Religion makes no call on us to reject that idea, which is the only idea some men can see in nature — the idea of the universal reign of Law — the necessity of conforming to it — the limitations which in one aspect it seems to place on the exercise of Will, — the essential basis, in another aspect, which it supplies for that exercise. On the contrary, the high regions into which this idea is found extending, and the matters over which it is found prevailing, is one of the deepest mysteries both of religion and of nature. We feel sometimes as if we should like to get above this rule — into some secret Presence where its bonds are broken. But no glimpse is ever given us of

anything, but 'Freedom within the bounds of Law.' The Will revealed to us in religion is not — any more than the Will revealed to us in nature — an arbitrary Will, but one with which, in this respect, 'there is no variableness, neither shadow of turning.'

We return, then, to the point from which we started. M. Guizot's affirmation that belief in the supernatural is essential to all religion is true only when it is understood in a special sense. Belief in the existence of a Living Will — of a Personal God — is indeed a requisite condition. Conviction 'that 'He is' must precede the conviction that 'He is the rewarder of those that diligently seek Him.' But the intellectual yoke involved in the common idea of the supernatural is a yoke which men impose upon themselves. Obscure thought and confused language are the main source of difficulty.

Assuredly, whatever may be the difficulties of Christianity, *this* is not one of them,—that it calls on us to believe in any exception to the universal prevalence and power of Law. Its leading facts and doctrines are directly connected with this belief, and directly suggestive of it. The Divine mission of Christ on earth—does not this imply not only the use of means to an end, but some inscrutable necessity that certain means, and these only, should be employed in resisting and overcoming evil? What else is the import of so many passages of Scripture implying that certain conditions were required to bring the Saviour of Man into a given relation with the race He was sent to save? 'It behoved Him . . . to 'make the Captain of our Salvation perfect through suffering.' 'It behoved Him in all things to be made like unto His brethren, *that He might be,*' &c.—with the reason added: 'for *in that* He himself hath suffered being tempted, *He is able* to 'succour them that are tempted.' Whatever *more* there may be in such passages, they all imply the universal reign of law in the moral and spiritual, as well as in the material world: that those laws had to be — behoved to be — obeyed; and that the results to be obtained are brought about by the adaptation of means to an end, or, as it were, by way of natural consequence from the instrumentality employed. This, however, is an idea which systematic theology is very apt to regard with intense suspicion, though, in fact, all theologies involve it, and build upon it. But then they are very apt to give explanations of that instrumentality which have no counterpart in the material or in the moral world. Perhaps it is not too much to say that the manifest decay which so many creeds and confessions are now suffering, arises mainly from the degree in which at least the

popular expositions of them dissociate the doctrines of Christianity from the analogy and course of nature. There is no such severance in Scripture — no shyness of illustrating Divine things by reference to the ‘natural.’ On the contrary, we are perpetually reminded that the laws of the spiritual world are in the highest sense laws of nature, whose obligation, operation, and effect are all in the constitution and course of things. Hence it is that so much was capable of being conveyed in the form of parable — the common actions and occurrences of daily life being chosen as the best vehicle and illustration of the highest spiritual truths. It is not merely, as Jeremy Taylor says, that ‘all things are full of such resemblances,’ — it is more than this — more than resemblance. It is the perpetual recurrence, under infinite varieties of application, of the same rules and principles of Divine government, — of the same Divine thoughts, Divine purposes, Divine affections. Hence it is that no verbal definitions or logical forms can convey religious truth with the fullness or the accuracy which belong to narratives taken from nature — man’s nature and life being, of course, included in the term:

‘And so, the Word had breath, and wrought
With human hands the Creed of creeds.’

The same idea is expressed in the passionate exclamation of Edward Irving:—‘We must speak in parables, or we must ‘present a wry and deceptive form of truth; of which ‘choice the first is to be preferred, and our Lord adopted ‘it. Because parable is truth veiled, not truth dismembered; ‘and as the eye of the understanding grows more piercing, ‘the veil is seen through, and the truth stands revealed.’ Nature is the great Parable; and the truths which she holds within her are veiled, but not dismembered. The pretended separation between what lies within nature and what lies beyond her is a dismemberment of the truth. Let those who find it difficult to believe in anything which is above the natural, first determine how much the natural includes. When they have finished this search, they will find nothing in the so-called ‘supernatural’ which is hard of acceptance or belief—nothing which is not rather essential to our understanding of this otherwise ‘unintelligible world.’