AMID all the diversities of the definitions given to the term "instinct" by naturalists and scientists, there is one point in which they all agree; it is in regarding instinct as an impulse. In its manifestation of intelligence, it is commonly placed in contrast with reason, in that, the being possessing the endowment of reason, acts with conscious forethought; in other words, the action is self-directive; but the possessor of instinct acts mechanically, or automatically, by an impulse which it has no power to direct or control.

Instinct, as a power or principle of intelligence in animals, differs from intellect in man, in that the latter is self-conscious and self-directive, choosing the means adapted to the end, but the former acts as an impulse, without self-direction. The activities properly denominated "instinctive," manifest an ability to meet without instruction or experience the demands of the appetites and desires, and to do not only those things essential for the continuance of the individual and species, but also, such things as involve the skill requisite for building nests, cells, and defences, for the procreation and protection of the young, and for obtaining food for their sustenance as if possessing the power of forecasting their future wants. Superadded to this, we find, in the case of many animals, the ability to construct defences, whereby they
may guard and protect themselves from the attacks of their enemies, to organize governments, to meet various exigencies, by the skilful adaptation of means to ends, which seem at least to indicate intelligence or reflective consciousness and self-direction.

The intelligence manifested in these acts necessitates the existence of mind somewhere, as the directive and impelling power of the instinct. If the act is an intelligent one, somewhere there must be a power of intelligence directing it. But in the case of the animal, it is not self-directive, and for this reason the intelligence cannot be self-conscious, but must have its existence back of the self-consciousness of the animal, thus directing the movements which are, so far as the animal is concerned, mechanical and automatic.

There is confessedly great difficulty in distinguishing between acts that are instinctive and those which are reflex, and again those which are intelligent. We will, however, consider some of those acts most commonly considered instinctive, with a view to their analysis, that we may find what is the character of that intelligence which constitutes the directive power of that impulsive element entering into instinct.

**INSTINCT IN BEES.**

Out of the almost innumerable acts of an instinctive character that might be cited, all more or less pertinent to our discussion, for the sake of brevity we will adduce but a few of the most distinctive and characteristic, first, in regard to bees, in their construction of cells or combs,—following mainly the authority of John Hunter, of England, secretary of the British Beekeeper's Association, with that of Huber, Dunbar, Reaumur, and Bevan.

Let us first examine into the construction of the combs of the beehive, and observe the remarkable accuracy of their conformity to those geometrical forms by which these structures possess the greatest possible strength with the least possible outlay of material.

The combs of a beehive consist of thin partitions which
enclose hexagonal cells, opening on both surfaces of the comb and closed by a partition that is common to those on both sides and occupies the middle distance between the two surfaces. This partition is not, however, a plane, but is composed of a collection of rhombs. Three and sometimes four of these rhombs incline to one another at a certain angle from the bottom of each cell, which thus has the shape of a flattened pyramid, of which the base is toward the mouth of the cell. The geometric form of each individual cell is therefore a hexagonal prism, terminated by a trihedral pyramid, the three sides of which are rhombs, which meet at the apex by their obtuse angles, and, forming oblique angles with the sides of the prism, truncate a portion of these and convert them from rectangles, which they would be in a regular prism, into trapeziums. Of the two angles of these trapeziums adjoining the base of the pyramid, one must be acute and the other obtuse, the acute angle of one trapezium being next to the acute angle of the adjoining trapezium, and the obtuse angle being in like manner next to another obtuse angle of the preceding trapezium; so that, in going round the base, we meet with pairs of acute and obtuse angles, alternately succeeding each other.

A structure of this kind, mathematicians or geometricians find, is the one of all others calculated to afford the greatest space for each cell with the same quantity of materials. The hexagonal form is the one, which comprehends, in a plane surface to be divided into partitions, the largest space compatible with the extent of the lines which enclose them. The truth of this proposition was perceived by Pappus, an ancient geometrician. But the determination of the form and inclination that should be given to the partitions that close the bottom of the cells, and which may of course belong equally to those on both sides of the comb, is a problem much more complicated and difficult of solution. It has exercised the learning and skill of mathematicians of great eminence. At the request of Reaumur, a distinguished writer
on this subject, a celebrated mathematician and analyst, Koenig, applied himself to the solution of the problem: "To find the construction of a hexagonal prism, terminated by a pyramid, composed of three equal and similar rhombs, such, that the solid may be made with the least quantity of materials," which, in other words, was asking him to determine the angles of the rhomb that should cut the hexagonal prism so as to form with it the figure of the least possible surface. Since the hexagon being given, this decided both their dimensions and their intersections with the sides of the cell. As the result of his solution, the mathematician Koenig assigned 109° 26' and 70° 34' as the required angles. Maraldi had previously measured the angles of the rhombus in the cell or comb of the bee, and found it to be 109° 28' and 70° 32' respectively. The process of solution of this problem by the mathematician Koenig was carefully examined, and the result was the detection of an error of precisely that amount which constituted the differences between his computation and the structure as measured by Maraldi. So in this case, the bee proved to be the more accurate mathematician, as well as a perfect geometrician and architect; for the construction of cells is now demonstrated to be such, that no other which could be conceived would take so little material and labor to afford the same room. Maclaurin estimates the saving of wax by partitions so constructed, above what would be required for a flat partition, at one-fourth of the wax which would be wanted to complete the truncated sides of the cells, so as to form them into rectangles. But a more essential advantage than even the economy of wax results from this structure; for by taking this form, it possesses much greater strength than if it were composed of planes at right angles to one another, which must be regarded as a most important requisite, considering the weight of stored honey for food, the young brood, beside the bees themselves, which must be supported by this structure.

The question for our solution is, how such diminutive insects could have adopted and adhered to so perfect a plan
of architecture, and what principles can actuate so great a multitude, to coöperate by the most effectual and systematic mode, in its completion.

BUFFON’S THEORY.

Buffon endeavored to explain the hexagonal form of the cells, by the uniform pressure of a great number of bees all working at the same time, exerted equally in all directions, in a limited space; and illustrates his theory by supposing a number of similar cylinders compressed together and taking the form of hexagonal prisms, by the uniform expansion of each. But this does not explain the inclinations and forms of the planes, which close each cell and so curiously conspire, on both sides, to serve a similar office, while they at the same time accurately fulfil a refined geometrical condition. Beside, it is a sufficient confutation of Buffon’s whole theory, that the process he supposes, is directly at variance with the actual one employed by the insects in the construction of their combs. But beside even this, a remarkable change of essential importance, in the geometrical form of the outside row of cells, was found by Huber in his study of the process of architecture; a modification of shape, necessary to prepare the way for the regularly formed cells which were to follow. Such special constructions exhibit adaptive as well as constructive intelligence, and show still more significantly the existence of intelligence back of the instinctive impulse, and directing its acts.

INSTINCT IN ANTS.

Let us next direct our attention to some of the instinctive acts of ants. Houzeau, a recent and philosophical writer on this subject, in reviewing the instincts of ants, their organizations into classes, their allotments and divisions of labor, their predatory excursions, in which they take captives from other communities of ants and subject them to the condition of slavery, or rear the young so taken to perform service as slaves, maintains that the ants most nearly approach man in
the arrangement and general nature of their social condition and existence. The foraging ants (Ectons), which are migratory in their habits, display in some of their instinctive acts very significant powers of adaptation. In crossing a small rill, having found a place which was spanned by a twig lying across it, but was too narrow for the transit of the army, it was widened by ants clinging to each side of the twig and in this way the track was broadened sufficiently to admit of the easy passage of the mass. Such acts would appear to lie beyond the category of what are commonly regarded as instinctive processes, since they are evidently something more than automatic and mechanical acts, involving the adaptation of means to special exigencies, and bear an obvious resemblance to those confessedly intelligent acts which result from a process of reasoning characteristic of man's mental powers. Again, the leaf-cutting ants (Ecodoma), living chiefly in Central and South America, and often committing great havoc among trees, stripping them of their foliage, especially attacking orange, lemon, and mango trees, exhibit most extraordinary resources in devising and carrying out plans for reaching the objects of their quest. It is credibly narrated, that in Brazil these ants tunneled under a wide ditch with which a gentleman residing there had surrounded his garden, for its protection. In another case, they tunneled beneath a creek, which was thirty feet wide and twenty feet deep, to gain access to an orchard. In grassy districts, to avoid obstructions, they will construct subterraneous roads, often hundreds of yards in length, taking a perfectly direct course to the tree they wish to attack.

In Texas the traveller not unfrequently chances upon circular clearings of small extent, but surrounded by the tall, rank grass, characteristic of that region, in which, either no vegetation or only a grain-bearing grass, called ant-rice by the inhabitants, known in botany as Aristida stricta, exists. This the agricultural ants of that section, not only harvest and carefully store for winter use, but in the spring season sow for themselves. These ants construct special granaries
in which to store their food, and places of defence or refuge for their young during the rainy season, beginning their process of building some months before the rainy season sets in.

THE “HOMING” INSTINCT.

But perhaps the most mysterious and wonderful manifestation of superhuman intelligence displayed among the instinctive acts of animals, is that by which certain animals, as cats and dogs, are able to return directly to their homes, from which they have been taken, called the “homing” instinct.

G. J. Romanes says on this subject of the “sense of direction” in animals, that “the evidence is unequivocal, with regard at least to dogs, cats, horses, sheep, pigs, and cattle. There seems to be practically no limit to the distance over which these animals may be able to return; and, what is of more importance, there can be no doubt that these animals, when finding their way home, do not require to traverse the exact routes by which they came. On the contrary, they generally seem to select the shortest or the straightest course, however circuitous the way may have been by which they were taken; or, if their outward journey is over two sides of a triangle, their homeward journey will probably be taken over the third side.” The sense by which they are guided, therefore, cannot be, as more than one eminent naturalist has suggested, the sense of smell, neither can it be either the sense of sight or hearing.

Romanes also discards the theory of “brain registration,” as animals are able to find their way home, which have been taken out in vessels by sea, in complicated directions and long easy curves, by such movements as it is impossible to suppose could be appreciated by the cerebral organization of animals.

THEORIES EXAMINED.

Now let us examine the most important among the leading or prevailing theories in regard to instinctive actions.
The first theory we will consider, which probably has received the most general acceptance, at least in former times, is substantially that of Descartes, namely, that instinctive actions originate in the outer world. This is the theory of reaction; that the outer world acts upon the nervous centres of animals, and these centres react upon the organism. Hence the animal, like a perfect automatic machine, operates at once and without any previous experience, as perfectly as after a longer period of working.

This theory fails to explain the true origin of the power, necessarily an intelligent power, that works this complex machine. The organism is only the machinery, which performs with its various parts, or organs, such varieties of operations as to indicate beyond a question an intelligent power directing and controlling those operations. If a machine, yet a machine whose varied movements are clearly directed and controlled by some intelligent power.

There is no word which is so liable to convey an erroneous impression as that of "origin" or "originate," because used in such a variety of significations. There is a peculiar liability, where it is used in one sense, to transfer to it another and more comprehensive meaning,—as in the example before us, where it is said the outer world is the origin of the instinctive acts of the animal. The outer world is the origin of the instinctive act only in this sense, that the outer world, coming in contact with the nervous organism, acts as an excitant which arouses the instinct, in the same way as the external world stimulates the mind to action in the self-conscious or intelligent being. Contact with the external world is only the occasion by which consciousness is aroused in the mind of man, but is not the source or origin of the consciousness. This must be sought for, not in the external world, but in the human subject. The outer world is only the occasional or instrumental cause, not the efficient, or real cause; but origin, strictly considered, must be traced to efficient cause. The question, Who killed Cock Robin? is not satisfactorily answered by the reply, It was an arrow
that killed Cock Robin. Both judge and jury demand an answer to another question: Who shot the arrow that killed Cock Robin? So, also, here, the question in like manner awaits an answer: What is the power that gives sensibility to the nervous centre that imparts the reflex action? and especially, What is the power that gives intelligent action to the animal organism? evidently, a power of superhuman intelligence directing the action, and that too with a sagacity and wisdom that surpasses all that is possible in human knowledge and experience, also imparting a skill which no human practice has ever acquired.

Beside this, there are very many acts universally recognized as instinctive, which on no accepted physiological law can be regarded as reflex action, so different are they in complication and duration from any that can properly be called reflex actions.

Reflex actions are either instantaneous, like coughing, sneezing, or the sudden drawing back of the hand when burned, or if continuous, like respiration, or the beating of the heart, they are simply repetitions of some comparatively simple act, distinct from those complications that attend such processes as the building of cells mathematically perfect, or storing them with food, or devising defences of a special character, involving an adaptation of faculties to peculiar exigencies, and resulting in the institution of special actions to accomplish specific ends. No principle of reflex action can account for leaf-cutting ants tunnelling under a stream, or under obstructions of thick grass, for several hundred yards, in a direct line toward the tree on which they wish to forage. Such special adaptations of means to ends reveal the action of an intelligent power back of the instinctive impulses, guiding and directing them. No physiological principle of reflex action furnishes an adequate explanation of such processes.

**LEWES' THEORY OF LAPSED INTELLIGENCE.**

The next theory we propose to consider is that of Lewes,
called the theory of "lapsed intelligence." Every instinct, according to Lewes, is "an organized experience," a "lapsed intelligence." "Its genesis is from actions that at first were tentative, in other words, intelligent." This theory has been construed in two ways. One construction is, that the possessor of instinct lapsed from a state of intelligence, which can be regarded as nothing less than superhuman, into a condition in which these actions, once intelligently performed, are repeated automatically and mechanically by the force of habit. By frequent repetition, and heredity, these individual adaptive actions, originally intelligent, have so written their effects on the nervous system, in the lifetime of the species, that it is prepared to perform mechanically and automatically adaptive actions which in previous generations were performed intelligently.

This view regards animals as once possessing superhuman intelligence,—for such they must have originally had, since many of their instinctive acts are transcendentally superior, in manifestations of intelligence, to anything possible to man,—and as lapsing from such exalted condition, into that of mere automatic machines. This scientific theory of the fall of animals exalts, into comparative glory, the gloomiest theological theory of Adam's fall with its disastrous results on the human race. But beside the absurdity involved in such a supposition, there is a valid scientific objection to this theory of a lapse from intelligence, which is, that an act never becomes automatic and mechanical by mere habit. The act becomes easier by repetition,—not requiring that fixedness of attention and conscious energy of purpose demanded in its incipient performance,—but never automatic and mechanical. Metaphysicians like Dugald Stewart have thoroughly discussed this subject of habit, with the result, of denying its automatic and mechanical character and the possibility of its becoming such.

Another interpretation of the theory of "lapsed intel-

1Problems of Life and Mind, Vol. i. pp. 208, 209.
2Philosophy of Human Mind, pp. 68–86.
The Divine Immanency.

Intelligence" regards it as being what might be more appropriately denominated, "accumulated and transmitted experience." The intelligent and tentative acts which were found to be beneficial were repeated and afterward transmitted by a principle of heredity to successive generations.

The question now presents itself, What is the origin and character of that intelligence which prompted the tentative or experimental act, and achieved results so perfect, as the building of a mathematical structure which is so complete that no mathematician however learned or accomplished, much less any architect, can surpass it, as exhibited in the cell or comb of the bee and the wasp? By no tentative process conceivable could the cat or dog have learned to take, in all varied circumstances and in new topographies, on the very instant of liberation, the right direction toward its accustomed place of abode, or its home. Such inner directive intelligence, developed into impulse, it is not possible to conceive as having been called into existence by any tentative process of experience.

DARWIN'S THEORY.

Another theory is that of Darwin, commonly accepted by those styling themselves "evolutionists." Mr. Darwin in part adopts the theory of Mr. Lewes, of lapsed intelligence, and avers, that some intelligent actions may become mechanical and automatic, and as such may be inherited, but claims for the greater number of complex instincts a different origin, that is, "through the natural selection of variations of simpler instinctive actions." At the same time he concedes that these variations arise from unknown causes.

But natural selection does not account for the origin of instincts. It accounts only for the continual preservation, or survival, of such instincts as are now in existence. The selection is, from all the varieties of instincts that come into existence, of those which prove to be the most profitable, thus resulting in their perpetuation through succeeding generations. Selection necessarily presupposes the present, actual
existence of those varieties of instincts out of which such selection is made. The question now before us, is not concerning the survival, or the preservation of instincts, but of their origin. There is contained in this theory of selection an assumption which is wholly unwarrantable and without a shadow of proof. This is, that at some former time instincts have existed which were not profitable, or conducive to the welfare of their possessor. It is as impossible to connote the existence of such instincts in the past, as it is to find "the missing link."

While we admit a certain truth in the theory of natural selection, as determining the survival of the fittest, the most superficial mind must readily see, that it does not account for origin, even in the case of varieties, as Darwin himself substantially admits in his later works. The origin of varieties, as Huxley affirms, must be traced back to the germ. Environment simply determines what of these shall survive, because best fitted to the circumstances in which they came into existence. As Huxley says of natural selection, "it only plays a large part in sorting out varieties, into those which are transitory and those which are permanent."

Now in regard to instincts, it remains to be proved, that any instinct, not profitable to its possessor, has ever come into existence; and until this is proved, the theory of natural selection has no application even to the survival and preservation of instincts, much less to their formation. But even if it were proved that natural selection has sorted out and perpetuated those instincts which are most profitable, it fails in this case, not less than in that of varieties, to account for their origin. It accounts only, conjointly with the doctrine of heredity, for their preservation, and transmission.

**ORIGIN OF INSTINCTS.**

But in respect to origin, on any rational principle of discerning the character of a cause in its effects, we must recognize the power, that gives to instinctive acts their impulse, as possessing intelligence.
This has been our process of analysis: we have traced the act called instinctive, to its source in impulse. Back of the impulse, we found in that which gives direction to it, or is its directive force, a power of intelligence. We can postulate nothing less than an intelligent power to explain the effects produced; for in postulating cause we must postulate an adequate cause.

We have then, next, to consider, What is the nature of this intelligence? The example already adduced, of the intelligence manifested in the bee in the construction of its cell on the strictest mathematical principles, in which may be combined the greatest strength with the smallest possible amount of material,—a problem capable of solution only by the higher mathematics, and which only the mathematician of superior culture can give,—is sufficient to fix the conviction, that it is superhuman in its character; especially when we consider that it is not, as in the human subject, the result of years of application and study, but that which guides the bee in its first existence and efforts, then forming its structure as perfectly as in its maturer period of growth and experience. No human being ever has possessed such intelligence at so early a period of existence. And what is specially worthy of connotation is, that this mathematical intelligence, exhibited in the construction of its cell, is not confined to the bee; but a kindred intelligence is manifested in the structure of cells, precisely similar, by the wasp, showing an identical power of intelligence working in both.

Again, the example already given, of the power displayed by the dog and cat in finding localities which have been their homes, exhibits an intelligence absolutely superhuman in its character, for no human being has ever been known to possess, or attain such ability. No theory of brain-registration can explain it. For changing directions and complicated movements, too much involved for a skilful navigator to work out on a chart, have been tried in experiments with animals so enclosed as to render it impossible for them to observe any object on their route by which to guide their
return, and yet they have been able to give a correct solution to the complex problem of direction, by taking, on the instant of liberation, the precise line of return. Here is the fact of a superhuman intelligence, which leads us to the inevitable conclusion, that the immanent or impelling and directing power of the impulse is a superhuman power of intelligence. The question, When and how does this superhuman power of intelligence act? is already implicitly answered in the facts and inferences already developed.

Instinct acts not by propulsion, but by impulsion. By no scientist, as we have said, is instinct ever defined, except as an impulse. The circumstances that call it into exercise may come from without, but the impulse itself comes from within. The intelligence then must be immanent. If it is superhuman, as we must concede it to be, then there can be no question in regard to its origin in the source of all intelligence, the absolute Mind, unless we deny such an existence. Well says St. George Mivart: "It cannot be denied, that in all these various processes performed by creatures devoid of self-conscious intelligence, there is, somehow and somewhere, a latent rationality, by the immanent existence of which their various admirably calculated activities are alone explicable. . . . . The existence of a constant, pervading, sustaining, all-controlling intelligence which is not the intelligence of irrational creatures themselves, is the supreme truth, which nature eloquently proclaims to him who with unprejudiced reason and loving sympathy will carefully consider her ways."

MORAL INSTINCTS.

There is another class of instincts, that have received little or no attention from scientists, for the apparent reason, that they are not susceptible of explanation, on any of those principles, with which scientists as such deal, unless it may be the principle of heredity. But heredity does not explain the origin of anything in nature. It only explains the fact and theoretically the process of transmission through the nervous organism.
The class of instincts we now propose to consider are those which possess moral characteristics. That class of instincts we have already considered, exhibit solely intellectual characteristics. They are those impulses which guide the different animals possessing them, in various processes, sometimes, as we have seen, most mysterious and complex, of adapting means to a given end. If this class may be properly called intellectual instincts, meaning by this term instincts possessing intellectual characteristics, the class of which we now treat may be called moral instincts, because possessing as distinctively moral characteristics; but without affirming or implying in either case the possession of what might be called an intellectual or moral nature.

DISTINCTIVE CHARACTERISTIC.

The most distinctive peculiarity of these moral instincts is the impulse to self-sacrifice. It manifests itself in nearly all animals, not only in the exposure of their lives for the defence of their young, but also in the actual and persistent sacrifice of their lives, as well as the endurance of suffering, privation, and pain.

These moral instincts of self-sacrifice cannot be explained on any theory of the gratification of the animal propensities, which may account for the perpetuation of their species. So far from any animal pleasure being ministered to, we find the very opposite condition of pain encountered, from which the animal nature spontaneously shrinks and which all sentient beings pertinaciously avoid.

It is inevitable as a matter of logical sequence, in tracing effects to their causes, on the principle, so earnestly and strenuously contended for by scientists, of an inherent potency, a power within, that works out all effects and external manifestations, to postulate a moral impulse within, as the source of these moral acts of self-sacrifice, a power subordinating or dominating over the animal sensibilities, so far at least as they relate to pleasure and pain.
EXTENT OF THE PRINCIPLE OF SACRIFICE.

Widening our view, we find this principle or law of sacrifice extending through the whole economy of nature, especially in the domain of organisms and life. The crystal that gives us a foregleam of cell growth and structure, losing its compacted symmetry and beauty, yields itself to dust, to give sustenance to the plants, while the plants in turn yield up their organism and life to the animal. In this higher domain of organic life, we find not only the lower animals surrendering their lives for the support of those possessing higher organisms, but even the higher becoming the food of the lower. The human organism becomes food for the worm, as well as fulfils the original mandate, "dust thou art, and unto dust shalt thou return." The spirit of sacrifice reveals itself as the spirit which pervades the all in the wide economy of nature.

It is the underlying existence of such a pervasive, immanent principle, that explains the fact of sympathy, or co-suffering. It is the nexus that binds all sufferers together, in that relation of universality, the many uniting in the roots of their existence in the infinite and all-pervading life, one in essence, manifold and various in manifestation, affirmed in the Old Testament, as the relation which Jehovah held to the people of Israel ("in their afflictions he was afflicted"), and distinctly revealed in the New Testament, as the bond that unites the Son of God to all humanity ("Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me").

This principle of sacrifice is divine in its origin, whatever may be the grade of being in which it has its manifestation; unconscious in the brute, conscious in humanity, but no less an instinctive impulse in the man, and because conscious in man, an impulse that may be repressed or cherished; and herein lies moral guilt on one hand and moral worthiness on the other.
The Divine Immanency.

Immanent in Humanity.

The divine power is immanent in all creation. There could be no creation, or even existence, without it. In humanity the spiritual life, intellectual and moral, becomes a conscious life, subject in its manifestations to the responsible sovereignty of free will.

This doctrine of the immanent principle or impulse of sacrifice, which must be referred to the divine life as its origin, explains those spontaneous acts of self-sacrifice, sometimes found and manifested even in the lowest classes in human society; in fact, often having the greatest strength, as impulse, in those of the strongest physical natures. We will give a well-authenticated illustration.

During the summer of 1870, a Western steamer, of the usual Western type, was making its way down the Red River of the North to Fargo. There were but few passengers on the cabin deck of the steamer; and among them, one of the Hudson Bay Company's officers had with him his young wife and a tiny little girl of three years old, a prattling, fearless, fascinating rover about the deck, and a pet with every one. On the floor of the lower deck, where she was taken by her nurse, she sees three men lying bound, chained hands and feet. They are on their way, to be tried at Fargo, and the sheriff, who has them in charge, never leaves them, for they are known to be desperate characters. They certainly have no aspect of lamb-like innocence. They talk to one another and to the sheriff, whom they call "Bill," in a copious and characteristic vocabulary of the roughest and most profane oaths. The little child came to them and looked on them curiously; and they looked at her silently. The oaths for a moment ceased their flow. She advanced and spoke to them in her broken words, half-piteously, half-coaxingly, and touched the fetters of one of them with her hand, asking what they were and if he liked them. The man smiled, but made no reply, and she moved away. But as she walked along, a sudden quick jerk and tilting of the
boat, caused by its striking some obstruction in the river, made the little child lose her balance, and with a scream she rolled off the deck into the river. The prisoner to whom she had spoken, and whose hand-cuffs she had touched, turned a look to the sheriff with the exclamation, "O God! don't shoot, Bill," and quickly rolling himself over and over, dropped into the water beside the child. As his arms were bound, so that he could not move them, he seized the child's dress in his teeth and, treading the water with his fettered feet, kept the child above the water until help came.

Through that thick, dark cloud of profanity and brutality, there broke a sudden gleam of the inner divine light of self-sacrifice. Yes: a gleam, though transient, of that very light that gives the cross of the Crucified One its divine glory.

As the explorer, amid the broken, lava-covered ruins of a wrecked city, will chance on some fragment, where still remain the half-defaced traces of lines of beauty, proof that a hand of surpassing skill once moved with fashioning power upon it, so sometimes we see in the wrecks of humanity, however defaced by sin, proofs of the fact that God made them. And this proof is most incontrovertibly exhibited in those instincts and impulses which their Creator incorporated into the very ground-work and texture of their being.

**HOW RELATED TO MORAL CHARACTER.**

It may be asserted here, however, that this impulse to self-sacrifice, whatever is its source, has no moral character in it, since it acts, as all impulses do, spontaneously and without choice of the individual subject, for moral character can be predicated only of acts originating in the free choice of the will.

A distinction may properly be made, between the moral character of the act and the actor, for while the act may be right, yet, if instinctive, or impulsive only, the moral quality of righteousness cannot be affirmed of the actor. The right act must originate in, or be attended with, the free conscious
choice of the actor. Yet on the other hand, moral character can be predicated, when the impulse to the right act, no matter from what source it may originate, is of conscious intent repressed, or held in abeyance.

Whenever the consciously right impulse is overruled or restrained by an act of the will, originating in wrong or selfish motives, such restraint, by the will, of the consciously right impulse, does possess a moral character which relates to the individual.

In the instance before us, the impulse of self-sacrifice which moved the desperado to rescue the child at the risk of his own life, had a moral character which related wholly to the higher or divine source of the impulse; yet acting as an impulse, wholly without the choice of the person in whom it existed, it could not be properly affirmed to be his own free act, and consequently, however noble in itself, did not impart moral nobility to the moral character of the actor, because the act was impulsive or instinctive.

Yet the repression of this impulse, as a free act of his own will, would have given to the individual the moral character of baseness, so that while it may be impossible to claim for the individual subject of these divine impulses a right moral character, on the other hand, it is possible to assert of those who restrain these divine impulses, a vicious, vile and depraved moral character.

This principle extends to the suppression of all those impulses implanted by the Author of our being for beneficent purposes. It reaches up to those who profess and avow religious character, yet live not only in the occasional, but in the habitual, repression of such self-sacrificing impulses. What kind of moral character can be imputed to those, whatever may be the creed they profess, or the ritual with which they worship, who repress wilfully and pertinaciously those maternal instincts which are commonly called "holy" and "sacred" in sober speech, as well as in poetic expression, and hand over their own infant offspring, in their weakness and utter dependence, to the barbarity of those, called in euphemistic
phrase "nurses," who are of heathen birth and culture. What kind of moral character, we ask, shall be imputed to those pious mothers who never fail to carry their prayer-book to churchly services of worship, and yet do, in the repression of "holy" and "sacred" maternal instincts, what no bear of the wild wood would do, for no she-bear would leave its cub to the care of another bear, while she went out to a whist party for the night, much less to the constant care of a worse than wild-wood savagery. Call the education, in supreme love of selfish ease, that holds in abeyance these natural maternal instincts, one of the attendants of civilization, if you please, but what is such education, or training, but the evisceration of the noblest moral instincts, whose character of self-sacrifice most distinctly reveals their divine origin?

If little can be said in praise of the moral character of the Samaritan, who, moved by instinctive feelings of sympathy, succored the wounded wayfarer on his way to Jericho, what can be said of the priest and Levite, who, repressing these instinctive feelings, passed by on the other side? Well said the Nazarene, "The publicans and harlots go into the kingdom of heaven before you."

All those subtle metaphysical distinctions which relate to moral character, as determined by the element of will, or voluntariness, are of infinitely less practical importance, than the harmonization of the whole being, both in its spontaneous and intentional acts, in its impulses and volitions, with the divine nature and will.

Obedience to the moral impulses, or instincts, implanted by the Divine Author of our being and nature, is obedience to the divine authority and will revealed within. So far as compliance with these impulses is conscious and voluntary, as it is in a greater or less degree in the human subject, there is conscious subjection and obedience rendered to the divine authority and will, although the source of such impulses may not be recognized by the human subject. In this case, What is the degree of moral merit to be accredited? may be a ques-
tion of casuistry difficult to adjust. But, on the other hand, conscious, voluntary, and determined resistance to these moral instincts can but be regarded as such wilful disobedience to the authority of God as carries positive guilt with it, since conscience pronounces these instincts to be right as well as beneficent.

KANT'S THEORY OF "A GOOD WILL," CONSIDERED.

It is in placing these elements, impulse, or inclination and a sense of duty, in antagonism to each other, making "a good will" to exist only when it stands opposed to inclination, instead of regarding moral character as existing in its completeness only when a good inclination is united to a good purpose, or to use a theological phrase, when a sanctified nature is united to a sanctified will,—which is universally regarded as the highest consummation of the work of religion,—that the great error of Kant appears, in his treatise on "Ethics," where he defines a "good will" as "good simply by virtue of its volitions and considered by itself is to be esteemed much higher, than all that can be brought about by it in favor of any inclination, nay even than the sum of all inclinations" (p. 2). But even beyond this assertion of the relative moral superiority of an act performed from a sense of duty, over the same act done from a feeling of inclination, Kant goes on to deny any degree of moral worth to such action. He says: "To be beneficent when we can, is a duty, and beside this, there are many minds so sympathetically constituted, that without any other motive, of vanity, or self-interest, they find a pleasure in spreading joy around them and can take delight in the satisfaction of others so far as it is their own work. But I maintain that in such a case, an action of this kind, however proper, however amiable it may be, has nevertheless no true moral worth, but is on a level with other inclinations" (p. 9).

It would seem as if it were enough for one, grounding moral character on the will, to affirm for the good action performed against inclination, by the mere force of a sense of
duty, a higher moral worth than that prompted and sustained by inclination; but to deny all "true moral worth" to an act, however good in itself, that is prompted and sustained by inclination, is opposed to that wider moral judgment, that considers character in its completeness, conjoining motive with will, being with doing, being right with doing right.

There can be no philosophical completeness to any investigation that does not consider both cause and effect. Surely every one must consider that to be the nobler character in which obedience to the right is prompted by love of the right, rather than constrained by the coercive force of a mere sense of duty. The former is the condition of moral freedom, the latter that of moral servitude. The former condition, of moral freedom, is that which the Son of God is represented as conferring upon us, by the communication of his spirit of self-sacrificing love. It is by him, as the Divine Spirit of self-sacrificing love, that the impulse to sacrifice, whose origin is divine, is prompted, sustained, and made dominant over the selfish inclinations.

It is thus, that the conflict between will and inclination is removed, their harmony secured, the feeling of compulsion dispelled, the condition of moral freedom conferred, and the lost image, or likeness to God, restored.

Says Schiller in his essay "Upon the Moral Uses of Esthetic Manners," "I do not hesitate then to lay down the principle, that that truly advances morality which destroys the opposition between inclination and goodness."8

It is especially in these moral instincts, implanted in the creatures of his power, that God reveals his presence and vindicates his creation, as the outcome of Him, whose noblest attribute, encompassing and energizing all others, is love, self-giving and self-sacrificing love.

The divine origin and nature of those moral instincts, displayed in the brute creation in acts of self-sacrifice for the defence of their young, is clearly implied, in the illustration

8 For a further discussion of this subject the reader is referred to Schiller's Esthetic Culture, Schlegel's Philosophy of Life, Martineau's Christian Life.
given of his own love by Christ, when, foretelling the doom of Jerusalem, he said: "How often would I have gathered thy children together, as a hen doth gather her brood under her wings!" The correlation between the brute creation and the Divine Being is the necessary basis of such comparison. The illustration has no pertinence, except as we understand the care and self-sacrifice in the brute creation, to be a manifestation of the Divine.

The impulse, or the instinct of self-sacrifice, has its origin in the divine power immanent in the brute and also in humanity—a power which is the source of all moral as well as intellectual instincts, for amid all "diversities of workings" it is "the same God who worketh all things in all" (1 Cor. xii. 6, Revised Version).

[To be continued.]