

blessed and the sinful, were far more vivid than those of their pagan predecessors, accepted and intensified these ancient ideas. They did not doubt that in the world to come they should meet their friends, and hold converse with them, as they had done here upon earth—an expectation that gives consolation to the human heart, reconciling it to the most sorrowful bereavements, and restoring to it its dead.

In the uncertainty as to what becomes of the soul in the interval between its separation from the body and the judgment-day, many different opinions were held. Some thought that it hovered over the grave, some that it wandered disconsolate through the air. In the popular belief, St. Peter sat as a door-keeper at the gate of heaven. To him it had been given to bind or to loose. He admitted or excluded the spirits of men at his pleasure. Many persons, however, were disposed to deny him this power, since his decisions would be anticipatory of the judgment-day, which would thus be rendered needless. After the time of Gregory the Great, the doctrine of purgatory met with general acceptance. A resting-place was provided for departed spirits.

That the spirits of the dead occasionally revisit the living, or haunt their former abodes, has been in all ages, in all European countries, a fixed belief, not confined to rustics, but participated in by the intelligent. A pleasing terror gathers round the winter's-evening fire-side at the stories of apparitions, goblins, ghosts. In the old times the Romans had their lares, or spirits of those who had led virtuous lives; their larvæ or lemures, the spirits of the wicked; their manes, the spirits of those of whom the merits were doubtful. If human testimony on such subjects can be of any value, there is

a body of evidence reaching from the remotest ages to the present time, as extensive and unimpeachable as is to be found in support of any thing whatever, that these shades of the dead congregate near tombstones, or take up their secret abode in the gloomy chambers of dilapidated castles, or walk by moonlight in moody solitude.

While these opinions have universally found popular acceptance in Europe, others of a very different nature have prevailed extensively in Asia, and indeed very generally in the higher regions of thought. Ecclesiastical authority succeeded in repressing them in the sixteenth century, but they never altogether disappeared. In our own times so silently and extensively have they been diffused in Europe, that it was found expedient in the papal Syllabus to draw them in a very conspicuous manner into the open light; and the Vatican Council, agreeing in that view of their obnoxious tendency and secret spread, has in an equally prominent and signal manner among its first canons anathematized all persons who hold them. "Let him be anathema who says that spiritual things are emanations of the divine substance, or that the divine essence by manifestation or development becomes all things." In view of this authoritative action, it is necessary now to consider the character and history of these opinions.

Ideas respecting the nature of God necessarily influence ideas respecting the nature of the soul. The eastern Asiatics had adopted the conception of an impersonal God, and, as regards the soul, its necessary consequence, the doctrine of emanation and absorption.

Thus the Vedic theology is based on the acknowledgment of a universal spirit pervading all things. "There is in truth but one Deity, the supreme Spirit; he is of the same nature as the soul of man." Both the



Vedas and the Institutes of Menu affirm that the soul is an emanation of the all-pervading Intellect, and that it is necessarily destined to be reabsorbed. They consider it to be without form, and that visible Nature, with all its beauties and harmonies, is only the shadow of God.

Vedaism developed itself into Buddhism, which has become the faith of a majority of the human race. This system acknowledges that there is a supreme Power, but denies that there is a supreme Being. It contemplates the existence of Force, giving rise as its manifestation to matter. It adopts the theory of emanation and absorption. In a burning taper it sees an effigy of man—an embodiment of matter, and an evolution of force. If we interrogate it respecting the destiny of the soul, it demands of us what has become of the flame when it is blown out, and in what condition it was before the taper was lighted. Was it a nonentity? Has it been annihilated? It admits that the idea of personality which has deluded us through life may not be instantaneously extinguished at death, but may be lost by slow degrees. On this is founded the doctrine of transmigration. But at length reunion with the universal Intellect takes place, Nirwana is reached, oblivion is attained, a state that has no relation to matter, space, or time, the state into which the departed flame of the extinguished taper has gone, the state in which we were before we were born. This is the end that we ought to hope for; it is reabsorption in the universal Force—supreme bliss, eternal rest.

Through Aristotle these doctrines were first introduced into Eastern Europe; indeed, eventually, as we shall see, he was regarded as the author of them. They exerted a dominating influence in the later period of

the Alexandrian school. Philo, the Jew, who lived in the time of Caligula, based his philosophy on the theory of emanation. Plotinus not only accepted that theory as applicable to the soul of man, but as affording an illustration of the nature of the Trinity. For, as a beam of light emanates from the sun, and as warmth emanates from the beam when it touches material bodies, so from the Father the Son emanates, and thence the Holy Ghost. From these views Plotinus derived a practical religious system, teaching the devout how to pass into a condition of ecstasy, a foretaste of absorption into the universal mundane soul. In that condition the soul loses its individual consciousness. In like manner Porphyry sought absorption in or union with God. He was a Tyrian by birth, established a school at Rome, and wrote against Christianity; his treatise on that subject was answered by Eusebius and St. Jerome, but the Emperor Theodosius silenced it more effectually by causing all the copies to be burnt. Porphyry bewails his own unworthiness, saying that he had been united to God in ecstasy but once in eighty-six years, whereas his master Plotinus had been so united six times in sixty years. A complete system of theology, based on the theory of emanation, was constructed by Proclus, who speculated on the manner in which absorption takes place: whether the soul is instantly reabsorbed and reunited in the moment of death, or whether it retains the sentiment of personality for a time, and subsides into complete reunion by successive steps.

From the Alexandrian Greeks these ideas passed to the Saracen philosophers, who very soon after the capture of the great Egyptian city abandoned to the lower orders their anthropomorphic notions of the nature of God and the simulachral form of the spirit of



man. As Arabism developed itself into a distinct scientific system, the theories of emanation and absorption were among its characteristic features. In this abandonment of vulgar Mohammedanism, the example of the Jews greatly assisted. They, too, had given up the anthropomorphism of their ancestors; they had exchanged the God who of old lived behind the veil of the temple for an infinite Intelligence pervading the universe, and, avowing their inability to conceive that any thing which had on a sudden been called into existence should be capable of immortality, they affirmed that the soul of man is connected with a past of which there was no beginning, and with a future to which there is no end.

In the intellectual history of Arabism the Jew and the Saracen are continually seen together. It was the same in their political history, whether we consider it in Syria, in Egypt, or in Spain. From them conjointly Western Europe derived its philosophical ideas, which in the course of time culminated in Averroism; Averroism is philosophical Islamism. Europeans generally regarded Averroes as the author of these heresies, and the orthodox branded him accordingly, but he was nothing more than their collector and commentator. His works invaded Christendom by two routes: from Spain through Southern France they reached Upper Italy, engendering numerous heresies on their way; from Sicily they passed to Naples and South Italy, under the auspices of Frederick II.

But, long before Europe suffered this great intellectual invasion, there were what might, perhaps, be termed sporadic instances of Orientalism. As an example I may quote the views of John Erigena (A. D. 800) He had adopted and taught the philosophy of Aristotle

had made a pilgrimage to the birthplace of that philosopher, and indulged a hope of uniting philosophy and religion in the manner proposed by the Christian ecclesiastics who were then studying in the Mohammedan universities of Spain. He was a native of Britain.

In a letter to Charles the Bald, Anastasius expresses his astonishment "how such a barbarian man, coming from the very ends of the earth, and remote from human conversation, could comprehend things so clearly, and transfer them into another language so well." The general intention of his writings was, as we have said, to unite philosophy with religion, but his treatment of these subjects brought him under ecclesiastical censure, and some of his works were adjudged to the flames. His most important book is entitled "De Divisione Naturæ."

Erigena's philosophy rests upon the observed and admitted fact that every living thing comes from something that had previously lived. The visible world, being a world of life, has therefore emanated necessarily from some primordial existence, and that existence is God, who is thus the originator and conservator of all. Whatever we see maintains itself as a visible thing through force derived from him, and, were that force withdrawn, it must necessarily disappear. Erigena thus conceives of the Deity as an unceasing participator in Nature, being its preserver, maintainer, upholder, and in that respect answering to the soul of the world of the Greeks. The particular life of individuals is therefore a part of general existence, that is, of the mundane soul.

If ever there were a withdrawal of the maintaining power, all things must return to the source from which they issued—that is, they must return to God, and be absorbed in him. All visible Nature must thus pass back



into "the Intellect" at last. "The death of the flesh is the auspices of the restitution of things, and of a return to their ancient conservation. So sounds revert back to the air in which they were born, and by which they were maintained, and they are heard no more; no man knows what has become of them. In that final absorption which, after a lapse of time, must necessarily come, God will be all in all, and nothing exist but him alone." "I contemplate him as the beginning and cause of all things; all things that are and those that have been, but now are not, were created from him, and by him, and in him. I also view him as the end and intransgressible term of all things. . . . There is a fourfold conception of universal Nature—two views of divine Nature, as origin and end; two also of framed Nature, causes and effects. There is nothing eternal but God."

The return of the soul to the universal Intellect is designated by Erigena as *Theosis*, or *Deification*. In that final absorption all remembrance of its past experiences is lost. The soul reverts to the condition in which it was before it animated the body. Necessarily, therefore, Erigena fell under the displeasure of the Church.

It was in India that men first recognized the fact that force is indestructible and eternal. This implies ideas more or less distinct of that which we now term its "correlation and conservation." Considerations connected with the stability of the universe give strength to this view, since it is clear that, were there either an increase or a diminution, the order of the world must cease. The definite and invariable amount of energy in the universe must therefore be accepted as a scientific fact. The changes we witness are in its distribution.

But, since the soul must be regarded as an active principle, to call a new one into existence out of noth-

ing is necessarily to add to the force previously in the world. And, if this has been done in the case of every individual who has been born, and is to be repeated for every individual hereafter, the totality of force must be continually increasing.

Moreover, to many devout persons there is something very revolting in the suggestion that the Almighty is a servitor to the caprices and lusts of man, and that, at a certain term after its origin, it is necessary for him to create for the embryo a soul.

Considering man as composed of two portions, a soul and a body, the obvious relations of the latter may cast much light on the mysterious, the obscure relations of the former. Now, the substance of which the body consists is obtained from the general mass of matter around us, and after death to that general mass it is restored. Has Nature, then, displayed before our eyes in the origin, mutations, and destiny of the material part, the body, a revelation that may guide us to a knowledge of the origin and destiny of the companion, the spiritual part, the soul?

Let us listen for a moment to one of the most powerful of Mohammedan writers:

"God has created the spirit of man out of a drop of his own light; its destiny is to return to him. Do not deceive yourself with the vain imagination that it will die when the body dies. The form you had on your entrance into this world, and your present form, are not the same; hence there is no necessity of your perishing, on account of the perishing of your body. Your spirit came into this world a stranger; it is only sojourning, in a temporary home. From the trials and tempests of this troublesome life, our refuge is in God. In reunion with him we shall find eternal rest—a rest



without sorrow, a joy without pain, a strength without infirmity, a knowledge without doubt, a tranquil and yet an ecstatic vision of the source of life and light and glory, the source from which we came." So says the Saracen philosopher, Al-Gazzali (A. D. 1010).

In a stone the material particles are in a state of stable equilibrium; it may, therefore, endure forever. An animal is in reality only a form through which a stream of matter is incessantly flowing. It receives its supplies, and dismisses its wastes. In this it resembles a cataract, a river, a flame. The particles that compose it at one instant have departed from it the next. It depends for its continuance on exterior supplies. It has a definite duration in time, and an inevitable moment comes in which it must die.

In the great problem of psychology we cannot expect to reach a scientific result, if we persist in restricting ourselves to the contemplation of one fact. We must avail ourselves of all accessible facts. Human psychology can never be completely resolved except through comparative psychology. With Descartes, we must inquire whether the souls of animals be relations of the human soul, less perfect members in the same series of development. We must take account of what we discover in the intelligent principle of the ant, as well as what we discern in the intelligent principle of man. Where would human physiology be, if it were not illuminated by the bright irradiations of comparative physiology?

Brodie, after an exhaustive consideration of the facts, affirms that the mind of animals is essentially the same as that of man. Every one familiar with the dog will admit that that creature knows right from wrong, and is conscious when he has committed a fault. Many

domestic animals have reasoning powers, and employ proper means for the attainment of ends. How numerous are the anecdotes related of the intentional actions of the elephant and the ape! Nor is this apparent intelligence due to imitation, to their association with man, for wild animals that have no such relation exhibit similar properties. In different species, the capacity and character greatly vary. Thus the dog is not only more intelligent, but has social and moral qualities that the cat does not possess; the former loves his master, the latter her home.

Du Bois-Reymond makes this striking remark: "With awe and wonder must the student of Nature regard that microscopic molecule of nervous substance which is the seat of the laborious, constructive, orderly, loyal, dauntless soul of the ant. It has developed itself to its present state through a countless series of generations." What an impressive inference we may draw from the statement of Huber, who has written so well on this subject: "If you will watch a single ant at work, you can tell what he will next do!" He is considering the matter, and reasoning as you are doing. Listen to one of the many anecdotes which Huber, at once truthful and artless, relates: "On the visit of an overseer ant to the works, when the laborers had begun the roof too soon, he examined it and had it taken down, the wall raised to the proper height, and a new ceiling constructed with the fragments of the old one." Surely these insects are not automata, they show intention. They recognize their old companions, who have been shut up from them for many months, and exhibit sentiments of joy at their return. Their antennal language is capable of manifold expression; it suits the interior of the nest, where all is dark.



While solitary insects do not live to raise their young, social insects have a longer term, they exhibit moral affections and educate their offspring. Patterns of patience and industry, some of these insignificant creatures will work sixteen or eighteen hours a day. Few men are capable of sustained mental application more than four or five hours.

Similarity of effects indicates similarity of causes; similarity of actions demands similarity of organs. I would ask the reader of these paragraphs, who is familiar with the habits of animals, and especially with the social relations of that wonderful insect to which reference has been made, to turn to the nineteenth chapter of my work on the "Intellectual Development of Europe," in which he will find a description of the social system of the Incas of Peru. Perhaps, then, in view of the similarity of the social institutions and personal conduct of the insect, and the social institutions and personal conduct of the civilized Indian—the one an insignificant speck, the other a man—he will not be disposed to disagree with me in the opinion that "from bees, and wasps, and ants, and birds, from all that low animal life on which he looks with supercilious contempt, man is destined one day to learn what in truth he really is."

The views of Descartes, who regarded all insects as automata, can scarcely be accepted without modification. Insects are automata only so far as the action of their ventral cord, and that portion of their cephalic ganglia which deals with contemporaneous impressions, is concerned.

It is one of the functions of vesicular-nervous material to retain traces or relics of impressions brought to it by the organs of sense; hence, nervous ganglia, being composed of that material, may be considered as regis-

tering apparatus. They also introduce the element of time into the action of the nervous mechanism. An impression, which without them might have forthwith ended in reflex action, is delayed, and with this duration come all those important effects arising through the interaction of many impressions, old and new, upon each other.

There is no such thing as a spontaneous, or self-originated, thought. Every intellectual act is the consequence of some preceding act. It comes into existence in virtue of something that has gone before. Two minds constituted precisely alike, and placed under the influence of precisely the same environment, must give rise to precisely the same thought. To such sameness of action we allude in the popular expression "common-sense"—a term full of meaning. In the origination of a thought there are two distinct conditions: the state of the organism as dependent on antecedent impressions, and on the existing physical circumstances.

In the cephalic ganglia of insects are stored up the relics of impressions that have been made upon the common peripheral nerves, and in them are kept those which are brought in by the organs of special sense—the visual, olfactive, auditory. The interaction of these raises insects above mere mechanical automata, in which the reaction instantly follows the impression.

In all cases the action of every nerve-centre, no matter what its stage of development may be, high or low, depends upon an essential chemical condition—oxidation. Even in man, if the supply of arterial blood be stopped but for a moment, the nerve-mechanism loses its power; if diminished, it correspondingly declines; if, on the contrary, it be increased—as when nitrogen monoxide is breathed—there is more energetic action.



Hence there arises a need of repair, a necessity for rest and sleep.

Two fundamental ideas are essentially attached to all our perceptions of external things: they are SPACE and TIME, and for these provision is made in the nervous mechanism while it is yet in an almost rudimentary state. The eye is the organ of space, the ear of time; the perceptions of which by the elaborate mechanism of these structures become infinitely more precise than would be possible if the sense of touch alone were resorted to.

There are some simple experiments which illustrate the vestiges of ganglionic impressions. If on a cold, polished metal, as a new razor, any object, such as a wafer, be laid, and the metal be then breathed upon, and, when the moisture has had time to disappear, the wafer be thrown off, though now the most critical inspection of the polished surface can discover no trace of any form, if we breathe once more upon it, a spectral image of the wafer comes plainly into view; and this may be done again and again. Nay, more, if the polished metal be carefully put aside where nothing can deteriorate its surface, and be so kept for many months, on breathing again upon it the shadowy form emerges.

Such an illustration shows how trivial an impression may be thus registered and preserved. But, if, on such an inorganic surface, an impression may thus be indelibly marked, how much more likely in the purposely-constructed ganglion! A shadow never falls upon a wall without leaving thereupon a permanent trace, a trace which might be made visible by resorting to proper processes. Photographic operations are cases in point. The portraits of our friends, or landscape views, may be hidden on the sensitive surface from the eye, but

they are ready to make their appearance as soon as proper developers are resorted to. A spectre is concealed on a silver or glassy surface until, by our necromancy, we make it come forth into the visible world. Upon the walls of our most private apartments, where we think the eye of intrusion is altogether shut out and our retirement can never be profaned, there exist the vestiges of all our acts, silhouettes of whatever we have done.

If, after the eyelids have been closed for some time, as when we first awake in the morning, we suddenly and steadfastly gaze at a brightly-illuminated object and then quickly close the lids again, a phantom image is perceived in the indefinite darkness beyond us. We may satisfy ourselves that this is not a fiction, but a reality, for many details that we had not time to identify in the momentary glance may be contemplated at our leisure in the phantom. We may thus make out the pattern of such an object as a lace curtain hanging in the window, or the branches of a tree beyond. By degrees the image becomes less and less distinct; in a minute or two it has disappeared. It seems to have a tendency to float away in the vacancy before us. If we attempt to follow it by moving the eyeball, it suddenly vanishes.

Such a duration of impressions on the retina proves that the effect of external influences on nerve-vesicles is not necessarily transitory. In this there is a correspondence to the duration, the emergence, the extinction, of impressions on photographic preparations. Thus, I have seen landscapes and architectural views taken in Mexico developed, as artists say, months subsequently in New York—the images coming out, after the long voyage, in all their proper forms and in all their proper