From the Author.—Report upon Sea-dredging. L. Agassiz. From the Society.—Proceedings of the Royal Society, No. 115. From the Canadian Institute.—The Canadian Journal, No. 4. From the Editors.—Nature; The Medical Press and Circular; Scientific Oninion

Scientific Opinion.

From Dr. Ryan Tenison.—British Medical Journal.

The CHAIRMAN announced that Mr. E. W. Brabrook and Mr. A. L. Lewis had been appointed Auditors of the Society's accounts for 1869.

A paper by Mr. L. OWEN PIKE, M.A., "On the Psychical Elements of Religion" was then read.

Introduction.—Definition of Terms.—What is Religion? This, I think, is a question which it is my duty to answer before I have any right to proceed further with the subject which I have undertaken to investigate. The professors of each individual faith sometimes brand as superstitions all the doctrines in which others differ from them, and regard themselves as the only believers in the true religion. It is hardly necessary to remark that were the teachings of any one sect adopted by the man of science in this sense, it would be impossible for him to propound such an inquiry as the present. But where does religion end and superstition begin for the impartial seeker after truth? Is it possible to draw any line with a hope that it will be generally accepted?

The best and the simplest method of dealing with the difficulty will, I think, be to accept the word "religion" in its widest sense, and to remember that the Latin relligio meant not less superstition than what the orthodox of any creed would term "religion." By religion, then, I do not understand any particular form of any particular faith, nor any particular faith regarded as a whole. I use the word as a generic term, including not only all revelations or pretended revelations, but also the results of every attempt to deal with those hidden mysteries of which we can know nothing except through revelation, or, in other words, which the Laws of Mind will not permit us to solve for ourselves. Those results vary according to the mental constitution and the circumstances of each individual or nation; but to all alike—from the Fetichism of the lowest savage, to Buddhism, the highest form of a creed not dependent on revelation—I give the name To the myths which form the basis of the most beautiful of religion. ancient poems, to the Pantheon of Greek and Roman civilisation, to all the conclusions of metaphysical speculators, to the Pantheism of one school of philosophy, to the Atheism of another, and even to that Scepticism which believes itself the negation of faith, I give alike the name of religion, and I hope in the end to justify my definition.

Though, however, without intending any disrespect to any form of faith, I discard for scientific purposes the distinction between religion and superstition, I have found it necessary to make a two-fold division of religion, which (as I hope to show) naturally falls under two heads:

1. The religion in which both the intellect and the emotions play a part.

2. The religion in which only the intellect plays a part.

The former I place first as that which, in the history of all nations and all individuals, precedes the latter, and is accepted by the great majority of mankind. The latter has never in any age been accepted by more than a few persons who have commonly been misunderstood, who have sometimes misunderstood their own conclusions, and who have never made many converts to their opinions even when they have succeeded in founding a faith. The mental history of such men, however, is of such importance, and their influence upon the direction which religion has taken has been so great, that it would be unjustifiable to exclude their views while searching for the common elements of religion, and for the causes which predispose mankind to accept a revelation.

If it is necessary to give a definition of the term "religion," it is, perhaps, not less necessary to say what I mean by the term "psychi-

cal," and to justify its use.

The words "psychical" and "psychology" have the double advantage of being sufficiently precise and yet of implying no theory whatever a rare and most valuable quality in a scientific term. The Greek word $\psi v \chi \dot{\eta}$ has a double meaning: (1.) the breath of life; (2.) the soul. And psychology is the science of that aggregate of phenomena which one school declares to be sufficiently explained, or susceptible of explanation by the laws of matter alone, but for which another school postulates the existence of spirit as a necessary cause. fortunate that a word exists which is equally applicable to the views of both schools; it is still more fortunate that the word is of so extended a meaning as to be consistent with the rejection of all the dogmatic axioms of both schools alike. Psychology, in the sense which is not only justified but suggested by etymology, and in the sense in which I use it, is the science of the phenomena of animal life in action. This definition, I am aware, trespasses apparently on the domain of what is commonly called "physiology;" but no psychology is complete without physiology, and it may be added that physiology is but a part of psychology. The waste and repair of tissue are so inseparably connected with volition, with emotion, with sense, and with intellect, that it is impossible to understand either class of phenomena without a knowledge of the other. Psychology, then, may be considered the dynamics of breathing beings, all of which appear to be endowed with consciousness in a greater or less degree; and the psychical elements of religion are those elements, if they may be so-called, which are to be discovered in the animals displaying the phenomena of religion.

Having now attempted to explain the sense in which I use the terms "religion" and "psychical," I will made a few remarks concerning my use of the term element. It is a word which has seen many changes, and which may possibly see many more. When applied to visible matter, it no longer means earth, air, fire, or water; and far be it from me to suggest that some of the mental phenomena which in our time are considered elementary, may not one day be resolved into more simple constituent parts. Indeed, it is already allowed by psychologists of most schools that the faculty of discrimination, or the sense of difference, is the ultimate basis of all psychical phenomena. But,

although every state of feeling may be said to involve this sense of difference in one form or other, the fact still remains that there is a wide distinction between an emotion and an intellectual perception, and that we do not as yet know precisely what is the cause of that distinction. To an emotion, therefore, and to a simple intellectual law of association, I have ventured to give the name of element, though I am fully prepared to admit that the expression must be considered somewhat faulty. I can only plead in apology that I have sought for a better word in vain.

I trust, however, that the object of the present inquiry is now sufficiently plain, though I may, perhaps, render it still plainer by giving a definition of "the psychical elements of religion" in gross, instead of term by term. I mean by the phrase those simple faculties or simple laws in the constitution of breathing beings, which faculties or laws can be traced in all forms of religion, including superstition; and I divide religion into two classes, because I hope to show that to one kind of religion two or more psychical conditions are necessary, while the other is but the recognition of the one fundamental but simple law of consciousness.

Part I.—The Elements of Popular Creeds.—No people which has handed down a literature has omitted to hand down a creed; and in all the popular creeds which have been handed down to us there are certain points of resemblance. All make a certain appeal to the intellect; all make a certain appeal to the emotions. Every superstition proclaims that a person or persons must be propitiated, and lays down a definite form of propitiation. Gods are always endowed with powers, motives, and feelings like those of human beings in kind, though greater in degree. It would be useless to prostrate oneself to a God who could not see, to pray to a God who could not hear, to sacrifice to a God who found no sweetness in the savour of sacrifice, to thank a God who could not be gratified, or to make atonement to a God who could not be angry. Such as the man is, such in character, though greater, must be the conception of the God; and, though the form of his body or bodies has varied, it has always been supposed that, in the mental affections at least, God made man in his own Nor is any other conception possible, as the human intellect is at present constituted; for any attempt to conceive the divine nature differently ends in Atheism, in Pantheism, which is Atheism in disguise, in Scepticism, which doubts, though it does not deny, the existence of a divine Person, or in the utter negation of thought. modern English Church, it is true, has declared God to be without body, parts, or passions, but does not, therefore, demand any intellectual assent to that proposition. It appeals not to the reason, but to the faith of the believer. It allows that God is a mystery beyond the grasp of man, and shrinks from the use of words which would profanely imply that He is in any respect like miserable human beings. But no form of prayer has yet been devised which does not tacitly assume that God listens to mankind as a great King listens to the petitions of his subjects. The weakness of the human intellect is a fact which

not even faith can disguise, and which man is compelled to declare in every word which he addresses to God.

The most beautiful, and perhaps the most rational, of all superstitions is that which attributes to the heavenly bodies the power of ordering all earthly events. Among all the natural objects which delight the senses, or appeal to the imagination, there are none which are so rich at once in charms for the eye and in food for the mind as an eastern sky on a clear night. Of the myriads of stars in the deep dark vault there is not one that is not lovely in itself, nor one that is not typical of order. As each pursues its appointed way, sometimes lost to view, but always returning at its appointed time, never destroying or attacking its fellows, it suggests the idea of a destiny benevolent but immutable.

The astrologers of Persia and Egypt must soon have discovered, not only that the succession of the seasons is as certain as the course of the moon and the stars, but that the seasons themselves depend upon the relative positions of the stars, the earth, and the sun. Night and day, summer and winter, seedtime and harvest, the blossom and the fruit, the breeding of cattle, and the flow of the tides are all influenced by the position of the sun or the moon, and may be predicted with certainty by the aid of astronomy. If the sun ceased to give us its light and heat, the pastures would cease to be green with herbage, the crops would cease to grow, the flocks and herds would cease to multiply, and man himself would cease to exist. The wise men of the east had in very early times advanced so far in knowledge that these facts were as clearly comprehended by them as by the astronomers and the chemists of a later age. But there was more poetry in their minds than in the minds of our more practical men of science. They were not content to regard light and heat as mere force; they converted the object from which heat and light appeared to come into a person—a God that had a will and ought to be worshipped.

There was thus introduced in very early times a difficulty which has recurred again and again in various religions, the difficulty of reconciling destiny with free will. The worshippers of the sun and the planets believed that the future could be predicted by the aid of the heavens, and were yet inconsistent enough to be seech the immutable stars for changes in their fate. They reasoned well enough at first; they were certain that many terrestrial events were brought to pass by celestial agency, and could be predicted through a knowledge of the celestial bodies; and they inferred that, as a necessary consequence, all events could be predicted in a similar manner. They omitted only one scientific process—verification. So far went their reason; then came in their own feelings, or the feelings of their disciples. It is terrible to face the unalterable, the inexorable fate. The Being that possessed incalculable power must surely, they thought, be not devoid of mercy, of tenderness, of sympathy for woe. He might be angry like themselves, and His anger might be pacified. He could not have created them with wills of which the apparent freedom was but a mockery, with hopes that were but delusions, with life that was no better than the existence of the falling leaf or the running water.

They would not believe all this. They would think better of themselves and better of the gods; for the planets soon became gods, like the sun, though less in power. The planets which, according to astrology, ruled by inflexible laws, presided, according to superstition, over the ever changing phases of life. If every day and every hour were influenced by the sun, or the moon, or some minor luminary, every human interest was the special care of a deity identical in name and in attributes with one of the heavenly bodies. The Sage discovered the power, and believed in more than the power of the heavens over the earth; the poet transferred the human form and human passions to the skies.

Astrology, however, has not been the only source of superstition. The earth has contributed gods no less than the heavens. The deification and personification of terrestrial objects, or of human powers, may, perhaps, in some cases, be merely a degradation of astrology. The respect once paid to the presiding deity may have been gradually transferred to the faculties over which he presided, to the earthly emblems of his influence. Star-worship is, however, but one development of an almost universal tendency, and a development which implies a considerable degree of civilisation. It requires less intellectual effort to conceive the tides and the storms as independent powers, or as powers possessed by spirits, than to conceive them as the dependents of a power or powers by which they are ruled from afar. Water-gods and storm-gods have taken the human form without the intervention of astrology; they have received prayers and sacrifices, and thankofferings without number. In some mythologies there is not a stream nor a grove without its spirit, nor a place of any kind without its genius.* The earth, and the air, and the waters have been peopled with innumerable beings in the likeness of men and women, sometimes hating with the fiercest of human passions, sometimes loving with the sweetest of human sympathies.

In all these Gods of the past, human nature has but expressed its hopes, and its fears, its joys and its miseries, its defeats and its victories, its littleness and its greatness. Mythology and superstition are the mirrors of mankind; they reflect all the knowledge, and all the feelings, and all the motives of the people to which they belong. Though the earliest tales may have lost their meaning, though the corruptions of language may obscure a beautiful allegory, though poet succeeding poet may have destroyed the simplicity of the fable which they have adorned, still each story in the form in which it exists is a chronicle of the manners of men, and of the character and the source of their religious feelings. Even the worship of bulls and serpents is an appeal to human sentiments no less than the worship of Apollo or Minerva. The fact that some animals are distinguished from others by great differences of passion or instinct is known even to the savage; and it is not wonderful that men should have paid homage to strength, and courage, and craft, under the form

^{*} This fact is a source of constant and bitter complaint to all the early Christian fathers. Such superstitions were common to almost all peoples, and almost all countries.

of the animals in which they are most conspicuous. In Egypt, however, there was what appears at first sight a brute-worship which a very slight knowledge of astrology will suffice to explain. A resemblance was traced between various groups of stars and various animals found upon the earth, and the names of the animals were by a very natural process made to serve as names of the constellations. It was soon discovered that the sun appeared to run his course through twelve of these constellations in the year, returning always to the point from which he had started. It thus became convenient to designate the seasons by the position of the sun. At the vernal equinox the sun entered Aries, or the Ram; and as a symbol of the spring the Egyptians made the God Ammon, whom they represented with the head and horns of a ram, but in whom, nevertheless Alexander the Great recognised, as he supposed, the Zeus of the Greeks. So the worship of Apis, the calf-god, and of the sacred bull, is simply the worship of the sun in Taurus, into which constellation he entered after leaving Aries. The Phœnix, which rises ever new from its own ashes, is but the Sun, which rises again and again from the night in which it is lost. The faith of the Egyptians, though it seems, until it is explained, the most brutal and monstrous which ever disgraced humanity, is but an elaborate form of sun-worship appealing to the senses through its emblems. The sun was worshipped as the sun simply, under the name of Ra; but it was the doctrine of the astrologers* that his influence varied with the constellation through which he might be passing; and he was worshipped under his different characters, just as Jupiter was worshipped by the Romans, sometimes as the thunderer, sometimes as the giver of rain, and sometimes as the god of boundaries. Had the Egyptians discovered one very important astronomical fact, which subsequent observation has added to our knowledge, the gods Ammon and Apis would never have been worshipped. Astronomers still announce that the sun enters Aries at the vernal equinox, but they speak of the sign and not of the constellation. The twelve signs of the Zodiac and their names are still retained as an arbitrary division of the sun's apparent course; but the constellations and the signs are no longer identical. The precession of the equinoxes has falsified all the wisdom and all the religion of the Egyptians.

Through ram-worship and bull-worship, through sun-worship, and star-worship, through storm-worship and water-worship, through prayers to all the good gods, and bribes to all the bad gods, may be seen the worship of a magnified humanity. It is necessary to inquire more closely what is the explanation of this universal law—why man in all countries seeks for a god, and why all the gods have, in one aspect at least, a resemblance to man. In their own frames, and in everything external to them, there is something to remind human beings of their weakness. In the midst of life we are in death. There is no power in all nature that we can change by any effort of our own. The hopes created by the best laid plans may be destroyed

by circumstances beyond the human ken. The fears which hem us in, and appear to leave no possibility of escape, may be dissipated by some unforeseen event. The affections that cling around a beloved object may be left torn and bleeding by some calamity that suggests the existence of a cruel and a quasi-human foe. The proudest and the strongest, the bravest and the wisest, are made to feel the humiliation of dependence, and that sense of dependence or of weakness is the foundation of all religion.

If religion in its first form is an attribute of humanity, it is still more an attribute of the female sex. All men are dependent, but women are even more dependent than men. It is a part of their nature to persuade, to implore, to please and sometime to sacrifice. It is a part of their nature to believe in the efficacy of entreaty; and what is a part of their nature is a part also of the nature of the weaker and more oppressed among men. It is not difficult for any human being to discover how much depends upon the good will and sympathy of others. The smile of a king or the frown of a tyrant, the mercy of an enemy or the loss of a friend, may make the misery or the happiness of a life; they may follow the soft word or the harsh word, conciliation or neglect. And it is not wonderful that the unseen power should have been likened to the powers which are seen. The loss to the mother is the same whether the son be taken from her by the spear of the foe or by the shaft of disease; the loss to the farmer is the same whether his cattle be stolen, or destroyed by murrain, whether his crops fail through want of sun, or are trampled down by human feet. Ruin or prosperity may be brought to pass through human agency or by means which human intelligence cannot understand; still men only followed a law of their being when they connected similar effects with similar causes.

A survey of all those ancient religions which are best known to us shows that they all agreed in reflecting human nature in the Heavens. They appear, however, to have differed in one important respect; the reflection of some was purely mental, the reflection of others was not only mental but corporeal. Some gave human passions and devices to the visible objects of the sky; others represented quasi-human beings as the governors of those objects themselves. But it may be safely asserted not only of those ancient faiths, but of every popular creed in every age, that they all exhibit two well-marked mental phenomena:

1. The operation of the emotion of fear.

2. The operation of that Intellectual Law* of Association, according to which like effects are attributed to like causes.

In short, the average human being has a dread of certain unknown powers because he likens them to himself. I do not, of course, assert that the same elements enter into all religions in the same proportions. The emotional element must necessarily vary with the individual; both the quantity and the quality of fear must be different in different persons; and the evidence of this fact is to be

^{*} Called by Professor Bain the "law of similarity." (See the Senses and the Intellect, passim.)

discovered in the preference shown by some for a patron god or saint of one character, and by others for one of another character. But every widely accepted religion gives play to the emotions, and every religion which gives play to the emotions introduces a power which

is propitiated and therefore feared.

It will, I am aware, be objected that the religion of Jesus is a religion not of fear but of love, and it will be objected also that no religion can be popular unless it offers comfort and happiness in one form or other. I do not dispute either of these statements, but I maintain, nevertheless, that fear is the great emotional basis of all popular religions. Out of fear springs hope, and a religion becomes widely diffused in proportion as it encourages the hopes of the fearful; but even Christianity, with its exquisite tenderness for the weak and the oppressed, declares that all shall be damned who, after the gospel has been preached to them, will not believe. It may be true that the emotional foundation of every popular religion is hope, but it is no less true that the foundation is laid on fear.

Part II.—The Elements of Philosophic Creeds.—Thus far I have dealt only with the religion of great masses—with the religion which appeals to popular feeling and in a certain sense to popular comprehension. I now approach that other form of religion to which the name of philosophy is commonly given, but which is, after all, only another aspect of human nature striving for a knowledge of that which it cannot grasp by its own faculties. The average man, though he feels a desire to know something of the universe and of the causes which he believes to be external to himself, is ready to take for granted the current faith of the day. But minds of a certain class existing in almost every age, though always limited in number, burn to make discoveries for themselves and to penetrate beyond the The history of the attempts made by such dogmas of theology. minds to found a science of Ontology, or of the Absolute, or in other words to escape the laws of their own existence, constitutes, perhaps, at once the most painful and the most instructive chapter in the history of man. The story repeats itself again and again; it is a circle beginning with inquiry and coming round to scepticism—which is but inquiry, or the admission that knowledge is wanting, expressed in Greek. And this serpent of delusive hope has been biting its own tail for more than twenty centuries.* Of this fact there is no doubt; but what, it may be asked, is the cause.

The cause, I answer, is to be found in the great fundamental law of the intellect, the law of relativity or discrimination—the law that the mind can have no knowledge of any objects except in their relation to another or other objects, and in relation also to itself. This law there seems every reason to believe that the founder of the Buddhist religion, whoever he may have been, not only discovered but appreciated in its full significance. It seems to be admitted by common consent that the person to whom the epithet of Buddha has been given separated himself from the world during many years which

^{*} The story is told with admirable clearness in Mr. G. H. Lewes's Biographical History of Philosophy.

he passed in reflection, and that when he re-appeared from his seclusion he believed in nothing, he saw no reality anywhere, and considered that extinction or absorption into the nothing was the great end of intellectual life. It is, without doubt possible that with our modern ideas we may attribute modern forms of thought to ancient thinkers, but the words in which Buddha's conclusions are expressed do certainly appear to imply a knowledge of the great law that we cannot know anything, except in its double relation to other things and to ourselves, and that the philosopher's desire for a higher knowledge is to human beings, as at present constituted, a desire for nothing—for annihilation.

Before, however, I enter further upon the consideration of this great law in its religious aspect, I feel it necessary to remark that a distinction must be drawn between the doctrines of Buddha and the various subsequent forms of Buddhism. Throughout all nature there appear to be connecting links; and in religion, as in all other matters there are such imperceptible gradations that there is a certain point at which it is difficult to pronounce whether emotion still forms an element or not, just as it is difficult to pronounce whether some organisms belong to the animal or the vegetable kingdom. Buddhism especially are these connecting links of religion to be found. The Buddhists of the contemplative Mahayana school personified the "nothing" by supposing it, under the name of Alaya, to be a soul and the substratum of all things. This conversion of nothing into a something was of course, if I have correctly interpreted Buddha's teaching, a direct contradiction of his most cherished belief; and yet perhaps it was the only interpretation possible for minds less profound than his in an age when he alone had discovered the fundamental law of mind. From the doctrine of a soul to the doctrine of a personal deity with definite attributes, the transition is not very difficult; and in Japan Buddha became a supreme God who sits enthroned in a heaven of diamonds, and who is an Almighty creator.*

The various forms of the Buddhist religion, even were there no other reason, would compel us to include the creed of the vulgar in the same category with the conclusions of the metaphysician. To the latter his conclusions are his religion no less than their faith to the former; and though it is possible, and for certain purposes convenient, to draw a broad line of demarcation between the two, yet it is no less certain that the immediate followers of any great metaphysico-religious teacher vacillate between adherence to a formula which they but imperfectly comprehend, and the desire to enunciate

^{*} I am unable (and I can hardly say that I regret it) to confirm my views of Buddha and Buddhism by that style of reference which is affected by accurate compilers. To give chapter and verse for a number of insignificant facts might command the approbation of the Saturday Review, but would give no assistance towards the comprehension of a great mind. I can only say that I have formed my opinion after a very careful comparison of the best and most recent works on Buddhism, including those of Schlagintweit and Professor Max Müller.

more positive doctrines which seem to them more intelligible. it happens that whatever the teaching of the founder may have been, there is no popular creed which is not distinctly anthropomorphic. Philosophers themselves, too, and many even of those who recognise the great law of relativity," often forget this fundamental law in practice, and so give a species of philosophic sanction to religion in its more popular form. At the very moment at which the existence of "the absolute," or "the infinite," or "the unconditioned," or "the all" or even "the nothing" is asserted or inferred as a fact independent of human consciousness, the great law is forgotten and the first step is made towards a renewal in some form or other, of the primary or anthropomorphic kind of faith. The philosopher's "something which underlies phenomena" stands in the place of (and is frequently called) his god. His esoteric disciples accept his views perhaps in nearly the same sense as himself, but when they preach to the outer world they forget the associations which already belong in every country to the name of God, and are surprised to discover that philosophy leaves the creed of the masses as nearly as possible where it was before.

Apart, then, from Revelation with which it is not our province to deal, it appears that religions vary with the introduction of the intellectual elements and the exclusion of the emotional. In a land in which the popular creed accepted the idea of Zeus enthroned on a lofty mountain and hurling his thunderbolts far and wide, it was possible for Pyrrho to pass through all the phases of thought which lead to scepticism—to the admission that we can know nothing of existence in itself, if such existence there be. In another land, into which the sceptical doctrines of Buddha were introduced as a creed, it was possible to evolve the idea of a God-like Zeus, seated on a diamond throne. These two lands were as widely separated by space, by race, by climate, and by language as Greece and Japan. any more convincing proof be needed that the psychical ground-work of religion is everywhere the same, but that religion differs in proportion as pure intellect is brought to bear upon the problems with which it deals?

In tracing the links which connect the ordinary religion of great masses with the religion of pure intellect, I have hitherto left almost unnoticed the important part which has been played by language in persuading the human mind to deceive itself. The growing science of comparative mythology illustrates this remarkable phenomenon in one of its aspects; the positive conclusions of some systems of philosophy illustrate it in another. In the former case language has at length been forced to reveal her own delusions; in the latter a different method is necessary, though the process discovered by comparative philology in the one case affords a clue to the process discoverable in the other. Nor is it necessary to admit all the conjectures

^{*} Among these may be mentioned Sir W. Hamilton, Cousin, Hegel, and, I fear, at least one of the most justly distinguished thinkers of our own time.

of the most advanced students of mythology in order to detect the personification of natural objects and natural forces through the medium of words. It is plain enough that the history of Daphne,* considered as a person, is but a very realistic, or, if the term be preferred, poetical version of the dawn of day with its attendant and subsequent phenomena. It is perhaps less plain, but certainly not less true, that "the Unconditioned," "the Absolute," "the Infinite" and many other "thes" followed by a capital initial are words tending to a personification, it may be poetical but certainly realistic.

The difference between the mythological term and the philosophical The former, being originally the name of a phenomenon of which cognisance is taken by the senses, requires no intermediate step between its primary and its secondary or anthropomorphic signification; the dawn, which (as far as we are concerned) is an actual fact, is personified, and the name of the fact is transferred to the person. The philosophical term may no less undergo the same change of meaning; it may be, and frequently is, used to designate a personal divinity; but its origin can be traced back some stages farther, and in this respect there is a very important difference between it and the mythological term. But when the philosophical term is used as the name of a deity, it is not the name of anything tangible, visible, or appreciable by any of the senses; it is the name of an attribute, which attribute can always be resolved into a negation. The absolute, for instance, is the negation of the relative; the infinite of the finite; the unconditioned of the conditioned. The use of these words affords a most instructive illustration of the law of relativity, and of the manner in which it asserts itself through all the deceptions of language. All these delusive philosophical terms are found in pairs, and there can be no pair without a relation of some kind subsisting between its two constituents. But upon consideration, I think, it will invariably be found that each of these two constituents is, in every case, if not meaningless, at least inconceivable. It is obvious that no one can realise to himself the meaning of the negative term (as e.g. of the infinite) without realising the meaning of the positive (as e.g. of the finite). Now the "finite" as a something, or a totality of many somethings existing, per se, is to me at least wholly inconceivable. I know what a finite stick is, and what any other particular finite object is, but I do not know what "the finite" is except in the sense of an attribute possessed by various tangible or visible substances—by substances of which I can take cognisance by some of my senses. I may perceive, too, that many objects resemble others in so far as they are finite, but I am still no nearer a knowledge of "the finite" per se; and I am utterly unable to grasp the

^{*} I have chosen the story of Daphne as a typical illustration, because it is one concerning the origin of which there can be no doubt. The word occurs, with little change of form, in different Aryan languages (e.g., Ahaan, Dahana, Daphne, Dawn), and the story is as simple as beautiful. The love and pursuit of the Sun are invariably followed by the death of the Dawn. (See Mr. G. W. Cox's Manual of Comp. Myth., etc., and Professor Max Müller's paper on the same subject in the Oxford Essays.)

idea of a totality of things finite, because the law of relativity compels me to think of another thing or things beyond. And if I have no idea of the finite, in this sense, which is the philosophical sense, I have of course no idea of "the infinite," which can only be the negation of I know not what. In the use of all these philosophical terms we see mind led captive by symbols of its own creation. Certain words are coined in order to serve, in logical phrase, as the names of attributes, but there is a tendency is most human minds to regard these names as something more than the names of attributes, or perhaps rather to forget what is meant by the expression. all apt to forget, as Plato forgot, that when we speak of blueness, of humanity, or even of relativity, we are speaking only of modes of resemblance between various objects of sense or thought. objects resemble each other in a particular manner, all human beings in another particular manner, all pairs of objects in standing towards each other in some relation. But no one has any cognisance of blueness, of humanity, or of relations of any kind apart from the blue objects, human objects, or objects in relation.* By a convenient fiction, however, it is possible to speak of any attribute, or in other words, of any mode of resemblance, in language identical in form with the language applied to the objects in which these modes of resemblance are traced. It is grammatically no less correct to say that blueness charms the sight than that the sky or the ocean charms the sight—that humanity has its troubles than that human beings have their troubles—that relations meet us everywhere than that we meet everywhere with objects in relation. But the faculty by which we give a name to an attribute, or mode of resemblance, is that faculty by which we are enabled to perceive similarity, and to which has been given the title of a law of association—the law of similarity. If we see a blue object to-day we think of blue objects we have seen on previous occasions and give to the mode of resemblance the name of blueness. And we perform just the same operation when we understand what we mean by the name of any attribute or any mode of resemblance.

If now we attempt to apply this method of examination to the term infinity, we shall discover, in the first place, that it means only the negation of finity; and when we apply it to the term finity, if such a word may be coined for the occasion, we shall see at once that no more is meant than that mode of resemblance which we perceive in finite objects. A short thick stick, and a long thin stick resemble each other in having ends; finity or finitude is the term used to express that mode of resemblance, to express the relation in which finite objects stand towards each other. To use the word in any other signification is to forget what an attribute really is, to change the value of the symbols used in psychological problems. What would be thought of a mathematician who having discovered

^{*} This undoubted fact depends ultimately on the "law of inseparable association", which it is not necessary to dwell upon here, but which is very clearly explained by Mr. J. S. Mill, in his Examination of Sir W. Hamilton's Philosophy, chap. xiv.

the value of x to be y-z should endeavour to ascertain its numerical equivalent on the assumption that x=2 (y+z)? Yet an analogous mistake is continually made by seekers after infinity, who quite forget that, if they retain the value originally assigned to their symbols throughout their investigations, infinity means no more than the absence of that resemblance which is perceived between sticks or other objects of various lengths, breadths or diameters, of which resemblance we can have no knowledge except such as may come to

us through the objects themselves.

What has been said of the finitude and infinitude, of the finite and the infinite, may be said mutatis mutandis of the other similar pairs of philosophical terms. I have selected the finite and the infinite for the purpose of illustrating my meaning, because the existence of the word infinity enabled me to point out the double ambiguity of meaning which is commonly wrapped up in these traps for acute intellects. Those philosophers who argue in favour of the independent existence of "infinity" do not draw any clear distinction between it and "the infinite." Nor can I draw any such distinction, as I do not profess to have any conception of either. But I can discover by the forms of language that "infinity" must be the negation of finity or finitude, and that "the infinite" must be the negation of "the finite." Of finity or finitude I know no more than that it is the name of an attribute of a mode of resemblance—and expresses the fact that certain objects have been compared and have been found to agree in the possession of that attribute. The negation of this attribute conveys no definite idea to my mind. I have no experience of any objects in which the attribute is wanting, and, therefore, no experience of any objects in which the want of it can be regarded as a mode of resemblance. "The finite," on the other hand, which, when it is explained at all, is explained to mean the sum of all finite objects, is quite beyond the intellectual grasp, because every attempt to apprehend it can be made only on the assumption of a boundary between this totality of finite objects and an unknown region beyond. But this unknown region must itself be either finite or infinite. We cannot conceive it as infinite because we start with the idea of a boundary; we cannot conceive it as finite because we start with the supposition that it is beyond the sum of finite objects. And we discover, therefore, that it is mere self-deception to persuade ourselves that we have any idea either of "the finite" or of "the infinite" in the sense of a totality.* The law of relativity, which forces us to draw a comparison, presents an insuperable obstacle to omniscience even of things finite.

The process of personifying "the infinite" differs, then, from the process of personifying the dawn by the interposition of three distinct stages: (1) an attribute, or mode of resemblance, receives a name

^{*} This is the conclusion arrived at by Mr. Herbert Spencer, though, strangely enough, he does not apply his discovery to "the relative" and "the absolute", but infers the positive existence of "the absolute." It seems clear that we cannot, for reasons similar to those already given, have any conception of "the relative" as a totality, and, therefore, à fortiori, that we cannot infer from it the existence of "the absolute."

(finitude) which can be used in grammatical construction in precisely the same manner as the name of an object possessing attributes; (2) the absence of this attribute or mode of resemblance is, by a convenient linguistic fiction, described as being in itself an attribute (infinitude); (3) a pair of names is coined for the purpose of expressing the totality of all modes of existence—one name to express the totality of all things possessing the particular attribute, "the finite;" the other to express the totality of all things not possessing it, "the infinite." And then "the infinite," like the dawn, is in name—though certainly not like the dawn in conception—personified.

I shall probably be asked how it is possible, if the mind really works according to definite laws, that meaningless conclusions or false conclusions can ever be arrived at. I think it will not be very difficult to show that the operation of those very laws upon the imperfect contrivances of language is sufficient to explain the whole mystery. Could we always command a clear comprehension of the fact to be expressed together with a word free from all other associations and adequate to the expression of that fact, we should have fewer systems of philosophy, and an easier method of exposing fallacies. But when most words have many different meanings it is no easy matter, even with the best intentions, to avoid the pitfalls of ambiguity; and many of these pitfalls have been laid by logicians in their attempts to escape from They have commonly perceived so much of the law of discrimination or relativity as to be aware that, in order to have any perception or conception of an object or of any of its attributes, it must be compared with something else. And, as a compendious way of stating this fact, they have invented such pairs of terms as horse and not-horse, blue and not-blue, man and not-man, finite and infinite. Now this is a curious illustration of the law of similarity; like contrivances are applied to what are at first sight like cases, and where the cases really are like no harm is done. A horse is defined to the eye and to the recollection by objects which are not horses, blue objects by objects which are not blue, and so the law of discrimination is satisfied. But when finite objects are treated in the same way as a class opposed to infinite, there is no likeness except in the form of the A blue object is marked out by other objects not blue, but a finite object, considered simply as finite, must necessarily be defined by objects which are also finite. What is the boundary in the one case is the boundary in the other, and the correlate for what is finite is not what is infinite, but what is finite also; and the coexistence of the two or more finite things satisfies the fundamental law of relativity, while the attempt to satisfy it by the invention of a something infinite ends in a meaningless contradiction in terms.*

As we perceive objects which are finite by the aid of others which are finite, so we perceive objects which stand in any relation by the aid of those in relation to which they stand. So, too, the law of dis-

^{*} I believe I have not been anticipated in this solution of an ever-recurring paradox. It seems to me to supply a mode of escape from one of the greatest psychological difficulties, or, rather, to show that the difficulty does not exist.

crimination cannot be satisfied by the invention of a non-relative class as opposed to that which is relative, for here again there would be a contradiction in terms and a futile attempt to violate the law, in apparent obedience to which the term non-relative or absolute has been invented. The non-relative must be the correlate of the relative; it must be, in short, just that which by its name it proclaims itself not to be; it must be at once in relation and not in relation.

Thus these ultimate negative abstract terms of some past, and I fear I must add even some modern, philosophies can be traced back to their origin, divested of their accumulated ambiguities, and shown to be mere symbols used in obedience to a false analogy. Thus the worship of the Word may be seen to have been perpetuated for centuries in a manner not intended by the fourth Evangelist. But to what, it may be asked, does the scientific search for a basis of religion bring us when we have discovered abstractions to be mere abstractions and meaningless terms to be devoid of meaning? To Atheism, to Pantheism, or to Scepticism? I answer, to none of these. We come only to the humble recognition of our human weakness, of which we have all the certainty that human beings can possess.

Beyond this, both the Atheist and the Pantheist, like metaphysicians of various schools, attempt to penetrate—but in vain. Both the Pantheist and the Atheist deny the personality of God—of that which we cannot know. They lay down a dogma, which is at least as full of mystery, as difficult to comprehend, as the dogmas of any religion. We can no more realise to our own minds the attributes of Divinity when they are applied to matter or force than when they are applied to a person. "The eternal," which is, in its usual acceptation, only another name for "the infinite," is beyond the intellectual grasp of human beings. The "indestructibility of matter" and the "eternity of force" are terms which add nothing to our knowledge. It is within our experience that when matter undergoes a change it continues to be matter in another form, and that when force appears to be lost it is but transmuted into force again. But for all this we have only the evidence of our senses and of our reason; carry discovery as far as you please and it is at last only the discovery of what is true relatively to human beings. Could it be proved that force is but a mode of matter, or that matter is but a mode of force, the proof would still be good only for human beings, and would leave untouched the great problem which has been called philosophic, but which might with propriety be termed philomoric—the problem of ontology, of what exists independently of all sense and all inference.

But, it may be said, to deny the possibility of knowledge, is to preach, if not Atheism, at least Scepticism. Scepticism, however, is, I think, a word inapplicable to any profound conviction, and most of all when that conviction is consistent with nearly every form of religious belief. And, apart from the implicit faith which is given to a revelation, there cannot be any human conviction more profound than that of the psychologist concerning the fundamental law of the human intellect. This, it must be remembered, is knowledge as positive as any of which we are capable, though not knowledge in the sense in

which the ancient philosophers desired it. And, though the perception of this law teaches a humility as deep as that of any religious system, it brings at the same time its own consolation. For the very law which precludes all knowledge except of things in relation to each other, and to ourselves, denies the power of conceiving a totality even of such relative knowledge. "The greater the circle of light, the greater the boundary of darkness," said Sir Humphrey Davy; and this profound remark, when translated into psychological language, means that the greater the number of relations discovered, the greater must we conceive to be the number discoverable. Each point in the circle stands in some relation to a point, or points, beyond the circle, and as the circumference is increased, so also must be increased the number of the points and of their relations. Thus the admission of our weakness is rewarded by a sense of our power, and, though the scientific progress of the individual man may be bounded by the term of his life, the scientific progress of mankind can be bounded only by the term of the duration of the species.

This is the ultimate conclusion of psychology, and may, in a sense, be considered a religion—a religion of humility tempered with self-respect. It is also a possible ingredient in most of the popular religions—whether they are, or profess to be, revealed or not. I do not mean to assert that the ordinary believer of a popular creed has any distinct notion of the law of relativity, but he has a glimmering of the truth that he cannot, by his own unaided intellect, discover the origin and real nature of the world external to himself—if such a world there be. And this sense of mystery is very nearly allied to fear, and so connects the emotional element of all wide-spread religions with the purely intellectual element which constitutes the creed of the

psychologist apart from his acceptance of revelation.

It appears then, I think, that the result has justified my statement that the attempts of what has been called philosophy must be considered in any search for the psychical elements of religion. Revelation has always presented itself as a message from that world which philosophy has striven in vain to reach. But while philosophy has been engaged in a fruitless struggle to free itself from the laws of the human mind, every messenger of every revelation has made use of those laws as the foundation upon which his edifice must be built. Thus the first preacher of every creed has stated either clearly or indistinctly, if not the law of relativity and the law that we cannot know anything except in its double relation to ourselves and to other objects—at least, some of the consequences which follow from that law. And thus he is always in perfect agreement with the teachings of psychology. No one, I trust, will suppose that I mention this fact as a proof of the truly divine origin of any revelation. To make use of such an argument, or of any scientific argument, would, in my opinion, be to place religion in a false position. Nor, on the other hand, when I show that every widely accepted creed goes beyond the simple recognition of human weakness, and makes out of human fears and human imagination a man-like god or gods, do I intend to argue against the truth of any form of faith. It is little more than a truism

to say that the religion of human beings could not have any existence if there were no human minds to entertain it. I have endeavoured to discover what special mental functions are necessary to religion, and, I trust, not altogether without success. I believe my conclusions illustrate some of the phenomena of the French revolution; I believe, too, that they give a certain power of predicting future events; and I do not hesitate to say that, so long as human beings are bound by the law of relativity, so long as they are susceptible of fear, and so long as they attribute like effects to like causes, so long will there be religion of one kind or other in every community.

The Rev. Dunbar Heath said that the idea of this paper seemed to be that there was a sort of psychical protoplasm, the same in all men, which under different circumstances formed different organisms, as it were, for religion. The ordinary opinion is that religion speaks to a special faculty in man, and even Bishop Temple goes so far as to say that there is such a faculty under the name of conscience, thereby assuming that cats and dogs, who undoubtedly have a conscience, are thereby, ipso facto, the recipients of revelation. The idea is that certain non-human, or superhuman, or spiritual elements are first breathed into us, and then that these are cherished and addressed by a superhuman afflation; this is simply as impossible as that two and two should make five; for all that the human being can feel, think, or do, must of course, by the nature of things, be a human feeling, thought, or deed. This is one of the true points in Mr. Pike's paper. He then divides religion rightly into intellectual and emotional; but here we should remember that all compound states of the human mind are a combination of the intellectual and emotional, and that thus again religion does not depend on a special faculty. As to the relative value of these two elements, he (Mr. Heath) perfectly agreed with Buckle that the second is very far beneath the other. Mr. Heath then gave an instance of a radical contradiction between some of the human psychical elements when applied to religion; viz., in the religious psychical idea of God being a Person. A person, he showed, was necessarily a bounded and finite being, commonly called an individual. This contradicts the other common psychical idea of God being infinite or unbounded; the two distinctly contradicting each other. Finally, he said, looking round at the whole subject, we must give our best energies to the mighty task of enlightening intellect, and giving a charitable play to emotion.

The following gentlemen also took part in the discussion:—The Rev. Dunbar Heath, Mr. Dibley, Mr. Walter Dendy, Mr. Charlesworth, Mr. Macrae Moir, Mr. Moncure Conway, Mr. Reddie, and Mr. Blake.

The meeting then adjourned till 1st February.