

***DANIEL
G. BRINTON***



***THE RELIGIOUS
SENTIMENT***

Daniel G. Brinton

The Religious Sentiment

**Its Source and Aim: A Contribution to the Science and
/ Philosophy of Religion**

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PREFACE

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MYTHOLOGY, since it began to receive a scientific handling at all, has been treated as a subordinate branch of history or of ethnology. The “science of religion,” as we know it in the works of Burnouf, Müller, and others, is a comparison of systems of worship in their historic development. The deeper inquiry as to what in the mind of man gave birth to religion in any of its forms, what spirit breathed and is ever breathing life into these dry bones, this, the final and highest question of all, has had but passing or prejudiced attention. To its investigation this book is devoted.

The analysis of the religious sentiment I offer is an inductive one, whose outlines were furnished by a preliminary study of the religions of the native race of America, a field selected as most favorable by reason of the simplicity of many of its cults, and the absence of theories respecting them. This study was embodied in “The Myths of the New World; a Treatise on the Symbolism and Mythology of the Red Race of America” (second edition, N. Y. 1876).

The results thus obtained I have in the present work expanded by including in the survey the historic religions of the Old World, and submitted the whole for solution to the Laws of Mind, regarded as physiological elements of growth, and to the Laws of Thought, these, as formal only, being held as nowise a development of those. This latter position, which is not conceded by the reigning school of psychology, I have taken pains to explain and defend as far as consistent

with the plan of this treatise; but I am well aware that to say all that can be said in proof of it, would take much more space than here allowed.

The main questions I have had before me in writing this volume have an interest beyond those which mere science propounds. What led men to imagine gods at all? What still prompts enlightened nations to worship? Is prayer of any avail, or of none? Is faith the last ground of adoration, or is reason? Is religion a transient phase of development, or is it the chief end of man? What is its warrant of continuance? If it overlive this day of crumbling theologies, whence will come its reprieve?

To such inquiries as these, answers satisfactory to thinking men of this time can, I believe, be given only by an inductive study of religions, supported by a sound psychology, and conducted in a spirit which acknowledges as possibly rightful, the reverence which every system claims. Those I propose, inadequate though they may be, can at any rate pretend to be the result of honest labor.

PHILADELPHIA, *January*, 1876.

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The distinction between the Science and the Philosophy of religion. It is assumed (1) that religions are products of thought, (2) that they have a unity of kind and purpose. They can be studied by the methods of natural science applied to Mind.

Mind is co-extensive with organism. Sensation and Emotion are prominent marks of it. These are either pleasurable or painful; the latter *diminish* vital motions, the former *increase* them. This is a product of natural selection. A mis-reading of these facts is the fallacy of Buddhism and other pessimistic systems. Pleasure comes from continuous action. This is illustrated by the esthetic emotions, volition and consciousness.

The climax of mind is Intellect. Physical changes accompany thought but cannot measure it. Relations of thought and feeling. *Truth* is its only measure. Truth, like pleasure, is desired for its preservative powers. It is reached through the laws of thought.

These laws are: (1) the natural order of the association of ideas, (2) the methods of applied logic, (3) the forms of correct reasoning. The last allow of mathematical expression. They are three in number, called those of Determination, Limitation and Excluded Middle.

The last is the key-stone of religious philosophy. Its diverse interpretations. Its mathematical expression shows that it does not relate to contradictories. But certain concrete analytic propositions, relating to contraries, do have this form. The contrary as

distinguished from the privative. The Conditioned and Unconditioned, the Knowable and Unknowable are not true contradictions. The synthesis of contraries is theoretic only.

Errors as to the limits of possible explanation corrected by these distinctions. The formal law is the last and complete explanation. The relations of thought, belief and being.

THE RELIGIOUS SENTIMENT.

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CHAPTER I.

THE BEARING OF THE LAWS OF MIND ON RELIGION.

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THE Science of Religion is one of the branches of general historical science. It embraces, as the domain of its investigation, all recorded facts relating to the displays of the Religious Sentiment. Its limits are defined by those facts, and the legitimate inferences from them. Its aim is to ascertain the constitutive laws of the origin and spread of religions, and to depict the influence they have exerted on the general life of mankind.

The question whether a given religion is true or false cannot present itself in this form as a proper subject of scientific inquiry. The most that can be asked is, whether some one system is best suited to a specified condition of the individual or the community.

The higher inquiry is the object of the Philosophy of Religion. This branch of study aims to pass beyond recorded facts and local adjustments in order to weigh the theoretical claims of religions, and measure their greater or less conformity with abstract truth. The formal or regulative laws of religious thought occupy it.

Theology, dogmatic or polemic, is an explanatory defence of some particular faith. Together with mythology and symbolism, it furnishes the material from which the Science and Philosophy of Religion seek to educe the laws

and frame the generalizations which will explain the source and aim of religion in general.

The common source of all devotional displays is the Religious Sentiment, a complex feeling, a thorough understanding of which is an essential preliminary to the study of religious systems.

Such a study proceeds on the assumption that all religions are products of thought, commenced and continued in accordance with the laws of the human mind, and, therefore, comprehensible to the extent to which these laws are known. No one disputes this, except in reference to his own religion. This, he is apt to assert, had something "supernatural" about its origin. If this word be correctly used, it may stand without cavil. The "natural" is that of which we know in whole or in part the laws; the "supernatural" means that of which we do not at present know in any degree the laws. The domain of the supernatural diminishes in the ratio of the increase of knowledge; and the inference that it also is absolutely under the control of law, is not only allowable but obligatory.

A second assumption must be that there is a unity of kind and purpose in all religions. Without this, no common law can exist for them. Such a law must hold good in all ages, in every condition of society, and in each instance. Hence those who explain religious systems as forms of government, or as systems of ethics, or as misconceived history, or as theories of natural philosophy, must be prepared to make their view good when it is universally applied, or else renounce the possibility of a Science of Religion; while those who would except their own system

from what they grant is the law of all others, violate the principles of investigation and thereby the canons of truth.

The methods of science are everywhere alike. Has the naturalist to explain an organism, he begins with its elements or proximate principles as obtained by analysis; he thence passes to the tissues and fluids which compose its members; these he considers first in a state of repose, their structure and their connections; then he examines their functions, the laws of their growth and action; and finally he has recourse to the doctrine of relations, *la théorie des milieux*, to define the conditions of its existence. Were such a method applied to a religion, it would lead us first to study its psychological elements, then the various expressions in word and act to which these give occasion, next the record of its growth and decay, and finally from these to gather the circumstantialia of human life and culture which led to its historic existence.

Some have urged that such a method should not be summoned to questions in mental philosophy. To do so, say they, is to confound things distinct, requiring distinct plans of study. Such a criticism might have had weight in the days when the mind was supposed to inhabit the body as a tenant a house, and have no relation to it other than that of a casual occupant. But that opinion is antiquated. More than three-fourths of a century ago the far-seeing thinker, Wilhelm von Humboldt, laid down the maxim that the phenomena of mind and matter obey laws identical in kind;⁶⁻¹ and a recent historian of science sums up the result of the latest research in these words:

“The old dualism of mind and body, which for centuries struggled in vain for reconciliation, finds it now, not indeed in the unity of substance, but in the unity of laws.”[6-2](#)

It is, therefore, as a question in mental philosophy to be treated by the methods of natural science, that I shall approach the discussion of the religious sentiment. As it is a part, or at least a manifestation of mind, I must preface its more particular consideration with some words on the mind in general, words which I shall make as few and as clear as possible.

At the beginning of this century, the naturalist Oken hazarded the assertion: “The human mind is a memberment of infusorial sensation,”[7-1](#) a phrase which has been the guiding principle of scientific psychology ever since. That in the course of this memberment or growth wholly new faculties are acquired, is conceded. As the union of two inorganic substances may yield a third different in every respect from either; or, as in the transition of inorganic to organic matter, the power of reproduction is attained; so, positively new powers may attend the development of mind. From sensations it progresses to emotions, from emotions to reason. The one is the psychical climax of the other. “We have still to do with the one mind, whose action develops itself with perception, through discrimination, till it arrives at notions, wherein its most general scheme, ‘truth and error,’ serves as the principle.”[8-1](#)

Extravagant as Oken’s expression seemed to many when it was published, it now falls short of the legitimate demands of science, and I may add, of religion. *Mind is co-extensive with organism*; in the language of logic, one

“connotes” the other; this statement, and nothing short of it, satisfies the conditions of the problem. Wherever we see Form preserved amid the change of substance, *there* is mind; it alone can work that miracle; only it gives Life. Matter suffers no increase; therefore the new is but a redistribution of the old; it is new in *form* only; and the maintenance of form under changes of substance is the one distinguishing mark of organism. To it is added the yet more wonderful power of transmitting form by reproduction. Wherever these are, are also the rudiments of mind. The distinction between the animal and the vegetable worlds, between the reasoning and unreasoning animals, is one of degree only. Whether, in a somewhat different sense, we should not go yet further, and say that mind is co-extensive with motion, and hence with phenomena, is a speculative inquiry which may have to be answered in the affirmative, but it does not concern us here.

The first and most general mark of Mind is sensation or common feeling. In technical language a sensation is defined to be the result of an impression on an organism, producing some molecular change in its nerve or life centres. It is the consequence of a contact with another existence. Measured by its effects upon the individual the common law of sensation is: Every impression, however slight, either adds to or takes from the sum of the life-force of the system; in the former case it produces a pleasurable, in the latter a painful sensation. The exceptions to this rule, though many, are such in appearance only.[9-1](#)

In the human race the impression can often be made quite as forcibly by a thought as by an act. “I am confident,”

says John Hunter, the anatomist, "that I can fix my attention to any part, until I have a sensation in that part." This is what is called the influence of the mind upon the body. Its extent is much greater than used to be imagined, and it has been a fertile source of religious delusions. Such sensations are called subjective; those produced by external force, objective.

The immediate consequent of a sensation is *reflex action*, the object of which is either to avoid pain or increase pleasure, in other words, either to preserve or augment the individual life.

The molecular changes incident to a sensation leave permanent traces, which are the physical bases of memory. One or several such remembered sensations, evoked by a present sensation, combine with it to form an Emotion. Characteristic of their origin is it that the emotions fall naturally into a dual classification, in which the one involves pleasurable or elevating, the other painful or depressing conditions. Thus we have the pairs joy and grief, hope and fear, love and hate, etc.

The question of pleasure and pain is thus seen to be the primary one of mental science. We must look to it to explain the meaning of sensation as a common quality of organism. What is the significance of pleasure and pain?

The question involves that of Life. Not to stray into foreign topics, it may broadly be said that as all change resolves itself into motion, and, as Helmholtz remarks, all science merges itself into mechanics, we should commence by asking what vital motions these sensations stand for or correspond to.

Every organism, and each of its parts, is the resultant of innumerable motions, a composition of forces. As such, each obeys the first law of motion, to wit, indefinite continuance of action until interfered with. This is a modification of Newton's "law of continuance," which, with the other primary laws of motion, must be taken as the foundation of biology as well as of astronomy.[11-1](#)

The diminution or dispersion of organic motion is expressed in physiological terms as *waste*; we are admonished of waste by *pain*; and thus admonished we supply the waste or avoid the injury as far as we can. But this connection of pain with waste is not a necessary one, nor is it the work of a *Providentia particularis*, as the schoolmen said. It is a simple result of natural selection. Many organisms have been born, no doubt, in which waste did not cause pain; caused, perhaps, pleasure. Consequently, they indulged their preferences and soon perished. Only those lived to propagate their kind in whom a different sensation was associated with waste, and they transmitted this sensitiveness increased by ancestral impression to their offspring. The curses of the human race to-day are alcohol, opium and tobacco, and they are so because they cause waste, but do not immediately produce painful but rather pleasurable feelings.

Pain, as the sensation of waste, is the precursor of death, of the part or system. By parity of evolution, pleasure came to be the sensation of continuance, of uninterrupted action, of increasing vigor and life. Every action, however, is accompanied by waste, and hence every pleasure develops pain. But it is all important to note that the latter

is the mental correlative not of the action but of its cessation, not of the life of the part but of its ceasing to live. Pain, it is true, in certain limits excites to action; but it is by awakening the self-preservative tendencies, which are the real actors. This physiological distinction, capable of illustration from sensitive vegetable as well as the lowest animal organisms, has had an intimate connection with religious theories. The problems of suffering and death are precisely the ones which all religions set forth to solve in theory and in practice. Their creeds and myths are based on what they make of pain. The theory of Buddhism, which now has more followers than any other faith, is founded on four axioms, which are called "the four excellent truths." The first and fundamental one is: "Pain is inseparable from existence." This is the principle of all pessimism, ancient and modern. Schopenhauer, an out-and-out pessimist, lays down the allied maxim, "All pleasure is negative, that is, it consists in getting rid of a want or pain,"¹³⁻¹ a principle expressed before his time in the saying "the highest pleasure is the relief from pain."

Consistently with this, Buddhism holds out as the ultimate of hope the state of Nirvana, in which existence is not, where the soul is "blown out" like the flame of a candle.

But physiology demolishes the corner-stone of this edifice when it shows that pain, so far from being inseparable from existence, has merely become, through transmitted experience, nearly inseparable from the progressive cessation of existence. While action and reaction are equal in inorganic nature, the principle of life modifies the operation of this universal law of force by

bringing in *nutrition*, which, were it complete, would antagonize reaction. In such a case, pleasure would be continuous, pain null; action constant, reaction hypothetical. As, however, nutrition in fact never wholly and at once replaces the elements altered by vital action, both physicians and metaphysicians have observed that pleasure is the fore-runner of pain, and has the latter as its certain sequel.[14-1](#)

Physiologically and practically, the definition of pleasure is, *maximum action with minimum waste*.

This latter generalization is the explanation of the esthetic emotions. The modern theory of art rests not on a psychological but a physiological, and this in turn on a physical basis. Helmholtz's theory of musical harmony depends on the experimental fact that a continued impression gives a pleasant, a discontinuous an unpleasant sensation. The mechanics of muscular structure prove that what are called graceful motions are those which are the mechanical resultant of the force of the muscle,—those which it can perform at least waste. The pleasure we take in curves, especially "the line of beauty," is because our eyes can follow them with a minimum action of its muscles of attachment. The popular figure called the Grecian figure or the walls of Troy, is pleasant because each straight line is shorter, and at right angles to the preceding one, thus giving the greatest possible change of action to the muscles of the eye.

Such a mechanical view of physiology presents other suggestions. The laws of vibratory motion lead to the inference that action in accordance with those laws gives

maximum intensity and minimum waste. Hence the pleasure the mind takes in harmonies of sound, of color and of odors.

The correct physiological conception of the most perfect physical life is that which will continue the longest in use, not that which can display the greatest muscular force. The ideal is one of extension, not of intension.

Religious art indicates the gradual recognition of these principles. True to their ideal of inaction, the Oriental nations represent their gods as mighty in stature, with prominent muscles, but sitting or reclining, often with closed eyes or folded hands, wrapped in robes, and lost in meditation. The Greeks, on the other hand, portrayed their deities of ordinary stature, naked, awake and erect, but the limbs smooth and round, the muscular lines and the veins hardly visible, so that in every attitude an indefinite sense of repose pervades the whole figure. Movement without effort, action without waste, is the immortality these incomparable works set forth. They are meant to teach that the ideal life is one, not of painless ease, but of joyous action.

The law of continuity to which I have alluded is not confined to simple motions. It is a general mathematical law, that the longer anything lasts the longer it is likely to last. If a die turns ace a dozen times handrunning, the chances are large that it will turn ace again. The Theory of Probabilities is founded upon this, and the value of statistics is based on an allied principle. Every condition opposes change through inertia. By this law, as the motion caused by a pleasurable sensation excites by the physical laws of associated motions the reminiscences of former pleasures

and pains, a tendency to permanence is acquired, which gives the physical basis for Volition. Experience and memory are, therefore, necessary to volition, and practically self restraint is secured by calling numerous past sensations to mind, deterrent ones, "the pains which are indirect pleasures," or else pleasurable ones. The Will is an exhibition under complex relations of the tendency to continuance which is expressed in the first law of motion. Its normal action is the maintenance of the individual life, the prolongation of the pleasurable sensations, the support of the forces which combat death.

Whatever the action, whether conscious or reflex, its real though often indirect and unaccomplished object is the preservation or the augmentation of the individual life. Such is the dictum of natural science, and it coincides singularly with the famous maxim of Spinoza: *Unaquaeque res, quantum in se est, in suo esse perseverare conatur.*

The consciousness which accompanies volitional action is derived from the common feeling which an organism has, as the result of all its parts deriving their nutrition from the same centre. Rising into the sphere of emotions, this at first muscular sensation becomes "self-feeling." The Individual is another name for the boundaries of reflex action.

Through memory and consciousness we reach that function of the mind called the intellect or reason, the product of which is *thought*. Its physical accompaniments are chemical action, and an increase of temperature in the brain. But the sum of the physical forces thus evolved is not the measure of the results of intellectual action. These differ from other forms of force in being incommensurate with

extension. They cannot be appraised in units of quantity, but in quality only. The chemico-vital forces by which a thought rises into consciousness bear not the slightest relation to the value of the thought itself. It is here as in those ancient myths where an earthly maiden brings forth a god. The power of the thought is dependent on another test than physical force, to wit, its *truth*. This is measured by its conformity to the laws of right reasoning, laws clearly ascertained, which are the common basis of all science, and to which it is the special province of the science of logic to give formal expression.

Physical force itself, in whatever form it appears, is only known to us as feeling or as thought; these alone we know to be real; all else is at least less real.¹⁸⁻¹ Not only is this true of the external world, but also of that assumed something, the reason, the soul, the ego, or the intellect. For the sake of convenience these words may be used; but it is well to know that this introduction of something that thinks, back of thought itself, is a mere figure of speech. We say, “*I* think,” as if the “*I*” was something else than the thinking. At most, it is but the relation of the thoughts. Pushed further, it becomes the limitation of thought by sensation, the higher by the lower. The Cartesian maxim, *cogito ergo sum*, has perpetuated this error, and the modern philosophy of the *ego* and *non-ego* has prevented its detection. A false reading of self-consciousness led to this assumption of “a thinking mind.” Our personality is but the perception of the solidarity of our thoughts and feelings; it is itself a thought.

These three manifestations of mind—sensations, emotions and thoughts—are mutually exclusive in their

tendencies. The patient forgets the fear of the result in the pain of the operation; in intense thought the pulse falls, the senses do not respond, emotions and action are absent. We may say that ideally the unimpeded exercise of the intellect forbids either sensation or emotion.

Contrasting sensation and emotion, on the one side, with intellect on the other, feeling with thought, they are seen to be polar or antithetical manifestations of mind. Each requires the other for its existence, yet in such wise that the one is developed at the expense of the other. The one waxes as the other wanes. This is seen to advantage when their most similar elements are compared. Thus consciousness in sensation is keenest when impressions are strongest; but this consciousness is a bar to intellectual self-consciousness, as was pointed out by Professor Ferrier in his general Law of consciousness.[20-1](#) When emotion and sensation are at their minimum, one is most conscious of the solidarity of one's thoughts; and just in proportion to the vividness of self-consciousness is thought lucid and strong. In an ideal intelligence, self-consciousness would be infinite, sensation infinitesimal.

Yet there is a parallelism between feeling and thought, as well as a contrast. As pain and pleasure indicate opposite tendencies in the forces which guide sensation and emotion, so do the true and the untrue direct thought, and bear the same relation to it. For as pain is the warning of death, so the untrue is the detrimental, the destructive. The man who reasons falsely, will act unwisely and run into danger thereby. To know the truth is to be ready for the worst. Who reasons correctly will live the longest. To love pleasure is not

more in the grain of man than to desire truth. "I have known many," says St. Augustine, "who like to deceive; to be deceived, none." Pleasure, joy, truth, are the respective measures of life in sensation, emotion, intellect; one or the other of these every organism seeks with all its might, its choice depending on which of these divisions of mind is prominently its own. As the last mentioned is the climax, truth presents itself as in some way the perfect expression of life.

We have seen what pleasure is, but what is truth? The question of Pilate remains, not indeed unanswered, but answered vaguely and discrepantly.[21-1](#) We may pass it by as one of speculative interest merely, and turn our attention to its practical paraphrase, what is true?

The rules of evidence as regards events are well known, and also the principles of reaching the laws of phenomena by inductive methods. Many say that the mind can go no further than this, that the truth thus reached, if not the highest, is at least the highest for man. It is at best relative, but it is real. The correctness of this statement may be tested by analyzing the processes by which we acquire knowledge.

Knowledge reaches the mind in two forms, for which there are in most languages, though not in modern English, two distinct expressions, *connaitre* and *savoir*, *kennen* and *wissen*. The former relates to knowledge through sensation, the latter through intellection; the former cannot be rendered in words, the latter can be; the former is reached through immediate perception, the latter through logical processes. For example: an odor is something we may

certainly know and can identify, but we cannot possibly describe it in words; justice on the other hand may be clearly defined to our mind, but it is equally impossible to translate it into sensation. Nevertheless, it is generally agreed that the one of these processes is, so far as it goes, as conclusive as the other, and that they proceed on essentially the same principles.²²⁻¹ Religious philosophy has to do only with the second form of knowledge, that reached through notions or thoughts.

The enchainment or sequence of thoughts in the mind is at first an accidental one. They arise through the two general relations of nearness in time or similarity in sensation. Their succession is prescribed by these conditions, and without conscious effort cannot be changed. They are notions about phenomena only, and hence are infinitely more likely to be wrong than right. Of the innumerable associations of thought possible, only one can yield the truth. The beneficial effects of this one were felt, and thus by experience man slowly came to distinguish the true as what is good for him, the untrue as what is injurious.

After he had done this for a while, he attempted to find out some plan in accordance with which he could so arrange his thoughts that they should always produce this desirable result. He was thus led to establish the rules for right reasoning, which are now familiarly known as Logic. This science was long looked upon as a completed one, and at the commencement of this century we find such a thinker as Coleridge expressing an opinion that further development in it was not to be expected. Since then it has, however, taken a fresh start, and by its growth has laid the foundation for a

system of metaphysics which will be free from the vagaries and unrealities which have thrown general discredit on the name of philosophy.

In one direction, as applied logic and the logic of induction, the natural associations of ideas have been thoroughly studied, and the methods by which they can be controlled and reduced have been taught with eminent success. In this branch, Bentham, Mill, Bain, and others have been prominent workers.

Dealing mainly with the subjects and materials of reasoning, with thoughts rather than with thinking, these writers, with the tendency of specialists, have not appreciated the labors of another school of logicians, who have made the investigation of the process of thinking itself their especial province. This is abstract logic, or pure logic, sometimes called, inasmuch as it deals with forms only, "formal logic," or because it deals with names and not things, "the logic of names." It dates its rise as an independent science from the discovery of what is known as "the quantification of the predicate," claimed by Sir William Hamilton. Of writers upon it may be mentioned Professor De Morgan, W. Stanley Jevons, and especially Professor George Boole of Belfast. The latter, one of the subtlest thinkers of this age, and eminent as a mathematician, succeeded in making an ultimate analysis of the laws of thinking, and in giving them a symbolic notation, by which not only the truth of a simple proposition but the relative degree of truth in complex propositions may be accurately estimated.[24-1](#)

This he did by showing that the laws of correct thinking can be expressed in algebraic notation, and, thus

expressed, will be subject to all the mathematical laws of an algebra whose symbols bear the uniform value of unity or nought (1 or 0)—a limitation required by the fact that pure logic deals in notions of quality only, not of quantity.

This mathematical form of logic was foreseen by Kant when he declared that all mathematical reasoning derives its validity from the logical laws; but no one before Professor Boole had succeeded in reaching the notation which subordinated these two divisions of abstract thought to the same formal types. His labors have not yet borne fruit in proportion to their value, and they are, I believe, comparatively little known. But in the future they will be regarded as epochal in the science of mind. They make us to see the same law governing mind and matter, thought and extension.

Not the least important result thus achieved was in emphasizing the contrast between the natural laws of mental association, and the laws of thinking which are the foundation of the syllogism.

By attending to this distinction we are enabled to keep the form and the matter of thought well apart—a neglect to do which, or rather a studied attempt to ignore which, is the radical error of the logic devised by Hegel, as I shall show more fully a little later.

All applied logic, inductive as well as deductive, is based on formal logic, and this in turn on the “laws of thought,” or rather of thinking. These are strictly regulative or abstract, and differ altogether from the natural laws of thought, such as those of similarity, contiguity and harmony, as well as from the rules of applied logic, such as those of agreement

and difference. The fundamental laws of thinking are three in number, and their bearing on all the higher questions of religious philosophy is so immediate that their consideration becomes of the last moment in such a study as this. They are called the laws of Determination, Limitation and Excluded Middle.

The first affirms that every object thought about must be conceived as itself, and not as some other thing. "A is A," or " $x = x$," is its formal expression. This teaches us that whatever we think of, must be thought as one or a unity. It is important, however, to note that this does not mean a mathematical unit, but a logical one, that is, identity and not contrast. So true is this that in mathematical logic the only value which can satisfy the formula is a concept which does not admit of increase, to wit, a Universal.

From this necessity of conceiving a thought under unity has arisen the interesting tendency, so frequently observable even in early times, to speak of the universe as one whole, the $\tau\omicron\ \pi\alpha\nu$ of the Greek philosophers; and also the monotheistic leaning of all thinkers, no matter what their creed, who have attained very general conceptions. Furthermore, the strong liability of confounding this speculative or logical unity with the concrete notion of individuality, or mathematical unity, has been, as I shall show hereafter, a fruitful source of error in both religious and metaphysical theories. Pure logic deals with quality only, not with quantity.

The second law is that of Limitation. As the first is sometimes called that of Affirmation, so this is called that of Negation. It prescribes that a thing is not that which it is