NOTES ON METAPHYSICS

FROM

LECTURES GIVEN

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PREFACE.

In preparing these notes, we have spared no pains to have them as full, exact, and as well arranged as possible; and we hope that they will supply a want long felt by the Students pursuing this study.

EDITORS FROM PRINCETON COLLEGE.

LECTURE I.

Pure Logic is a science; applied Logic has in it some of the elements of an art. A science teaches us to know (*scio*); an art teaches us to do or to make. *To do*=πράττω, to act without leaving any product; *to make*=ποιέω, to act and leave a ποίημα, a product which survives the making. If Logic were an art, it would be *ars artium*, because it penetrates all others. All other arts presuppose it and must conform to its rules—*e. g.*, Poetry cannot give us a round square. In the same limited sense, Logic is *scientia scientiarum*, because it penetrates and regulates the procedure of the mind in all the other sciences. But Logic is not the true *scientia scientiarum;* that title belongs to Philosophy.

Science and Philosophy have this in common, that they take isolated facts and harmonize them under all inclusive laws and principles. In proportion as we bring facts into unity or comprise a set of facts under a common law, we give a philosophical and scientific character to our knowledge. When we speak of Science simply, we usually mean this process as carried on in the material sphere; by Philosophy, we mean the same process in the sphere of the non-material. By the use of an adjunct the two terms may be employed interchangeably—*e. g.*, we speak indifferently of the Science of Mind and the Philosophy of Mind, of Mental Science and Mental Philosophy, of Natural Philosophy and Physical Science.

The true *scientia scientiarum* is that which comprehends and philosophically arranges all other sciences. It embraces all departments of being, matter as well as mind. It gives to each science its proper place, includes them all in their relations to each other, and keeps them from jostling. It is *prima philosophia*, it is the Ultimate Philosophy, the science of the laws which underlie and condition all phenomena, without which they could not exist. This coördination of the sciences is of great importance; the sciences should not jostle, but should be kept distinct;

it is important also to show each science in its relations to every other science.

Science=the process of arranging groups of facts under higher laws. In proportion as we unify facts and harmonize them under laws and principles, we have a scientific view of them. The term science is also used to mean, (*a*) knowledge verified by scientific tests; (*b*) the most lately discovered facts or truths in any department of science; (*c*) unwarranted inferences drawn from scientific facts. Much of the supposed conflict between science and religion is due to these unwarranted inferences. (*d*) Pseudo-Science used by skeptics.

Pure Logic is *logica docens;* Applied Logic is *logica utens.*

"What is mind? No matter.
What is matter? Never mind.
What is the soul? It is immaterial."—*Punch.*

Science & religion are not antagonistic,
for if they can be, they are not true,
or one of them is not.

LECTURE II.

Species in Logic is to be distinguished from species in Natural History, and both are distinguishable from Varieties. A species in Logic=any one of the proximate coördinate classes into which a genus may be divided. In Logic, genus and species are relative terms; in relation to its superior class, any class is a species; in relation to an inferior class, a genus. Any species may become a genus, or any genus a species, except that *summum genus* can never be a species, nor *infima species* a genus. Species in Natural History is confined to a single one of all this ascending and descending series, and=such a class of animals as has or may have descended from a single pair, or such a class of plants as has or may have sprung from a single seed; *e. g.*, all horses belong to one species, the different breeds of horses are merely varieties. These varieties differ in some respects, but all are recognized by mankind as belonging to the one species, horse. In the Logical sense, each of these varieties is a species of the genus horse. The same class may be, in Logic, a species, and, in Natural History, a variety. Logically, *quadruped* is one of the species of the genus *animal;* in Natural History it includes a great number of species, viz., all four-footed species. In Logic, all the classifications up and down may be species. *Varieties* are the classes included under any Natural History species. We must always be careful to distinguish species, in its Logical sense, from the same term in its Natural History sense.

We have defined species in Natural History to be such a class of animals as has or may have descended from a single pair. The marks by which such oneness of species is determined are two: (*a*) Permanence of type—*i. e.*, the class maintains a permanent sameness as to its leading and distinctive characteristics. Although the members of the class may become modified in various ways, yet they never pass wholly away from the original type or lose the original characteristics. However much horses

may be improved by breeding, they are still improved as horses. If an improved breed of horses be neglected and allowed to run wild, it returns, in time, to the original type from which it was improved. A horse cannot be improved into some other sort of animal; under all improvements he still remains a horse; there is no radical deviation from the original type.

(*b*) Permanent Fertility or Power of Permanent Interpropagation and Reproduction. The members of any species have the power of permanent interpropagation with members of the same species, *i. e.*, have the power of producing a permanently fertile progeny. But one species cannot permanently interbreed with another. No new species having the power of propagation can be produced by the interbreeding of two species; the progeny resulting from such a union is not fertile; *e. g.*, by interpropagation of the horse and the ass the mule is produced; but the mule has not the power of reproducing its kind; it is not fertile.

Other marks of oneness of species are:

(*c*) General External Resemblance or essential similarity of outward form, figure, and aspect. Horses vary greatly in size and color, yet their outward form is the same as to all essentials, by which we recognize every variety as belonging to the species horse.

(*d*) General Anatomical and Physiological Resemblance. Anatomical resemblance is resemblance as to structure and form of the principal organs; physiological resemblance is resemblance as to the functions or uses of these organs. These are found among all the members of a species.

(*e*) General Psychological Resemblance. Animals are distinguished from plants by the possession of psychological faculties. Accordingly we find running through all the varieties of a species, common psychological peculiarities. Dogs assume many varieties of shape, size, color and appearance, yet they all display one fundamental psychological characteristic, viz., they are in a state of unrest without a master. So all horses display an aptitude for being domesticated and trained.

LECTURE III.

There has been much controversy as to whether the human race is one species, *i. e.*, actually or possibly descended from a single pair. It has been alleged that the diversities to be found in the human race are so great that it cannot have descended from one pair. This question has an important bearing on the Scriptures. If mankind cannot be descended from a single pair, then the Scripture account is untrue. If we prove that mankind may be descended from a single pair, we do not prove the Scripture account to be true, but only prove that it may be true, that the objections raised against it are not valid. There are two schools of scientific men who hold that the human race cannot be so descended.

(1.) The school of Agassiz, who held that the diversities existing among men are so great that there must have been at least several original pairs. To refute this view we must refer to the criteria of unity of species already given, and see whether mankind has the marks of such unity.

(*a*) Mankind exhibit permanence of type. The race may become improved by culture or degraded by neglect, but still retains the same type as at first.

(*b*) All the varieties of the human race have the power of permanent interpropagation.

(*c*) There is a general external resemblance. There is no class of men whom we do not at once recognize as men, nor any class of animals which we ever mistake for men. There may be great diversities in size, shape of head, complexion, etc., but still there is a fundamental resemblance as to form and aspect. All men are bipeds and walk upright.

(*d*) There is great similarity of structure and function. No radical diversity of either has ever been noted.

(*e*) No one can doubt the psychological resemblances which exist between all varieties of the human race. All men are pos-

sessed of consciousness, the reasoning faculty, the power to perceive *à priori* truths, and the power to express thought in articulate speech. (Locke said man was not only *animal rationale*, but also *animal orationale*.) Man also has the power of recognizing moral obligation and religious duty. All men recognize the distinction between right and wrong; this is true of even the lowest and most debased races of mankind. All men have the capacity for religion and recognize a higher being to whom they have moral obligations. Lord Bacon pointed out that, as a dog is in a state of unrest without a master, so is man without his God.

(2.) The second school which denies the Scriptural account of the descent of mankind, holds that the human race is not a distinct species, but has been gradually developed out of the higher animals. This is the school of Darwin. It makes man a higher variety of ape. Against this theory we urge the following considerations:

(*a*) In all known history, these animals have not been found to take any new or higher form, much less to develop into men.

(*b*) They are lacking in both external and internal or structural and functional resemblance to man.

(*c*) But more decisive than these is the absence of psychological resemblance. These animals have no reason, no ability to recognize *à priori* truths, no moral faculty.

(*d*) Those classes of animals which externally most closely resemble man are not the highest classes of animals. The ape is not so noble an animal as the lion or the horse, which have no external resemblance to man.

All these considerations prove the possible unity of our race, *i. e.*, that it may have sprung from a single pair, and refute the positions of Agassiz and Darwin. Their theories therefore, have no validity as objections to the account given in the Bible. If this account were discredited, it would cast much doubt on the rest of the Scripture. *Falsa in uno, falsa in omnibus.* The unity of our race is referred to in the New Testament; the plan of redemption assumes the fall of the race in that of the original pair; thus we see that we must be very careful in accepting new interpretations of Scripture on the ground that Science demands them.

LECTURE IV.

We now come to a question almost as old as Philosophy itself, viz., What are logical Universals? Universal=*unum*+*versum*, unity pervading a plurality. Whenever we use a general term we use a Universal. In every class of objects there is both a plurality of objects and a something which make these objects constitute one class. A universal is that in a class, genus, or species, by which it (the class) is made one, that by which the plurality of objects become one class; or, a Universal is that which is common to all the individuals of a class.

Universals have five logical forms, (1) Genus, (2) Species, (3) Differentia, (4) Property, (5) Accident. Of these forms the first three constitute Essence. Any one of these forms is predicable of a class.

Genus=that which is common to the whole class, that out of which the Species is made.

Species=the whole essence=genus+differentia.

Differentia=that part of the essence which is peculiar to the species.

Property. There are two views of Property; (1) that it flows from the essence as a necessary consequence; (2) that it only invariably accompanies the essence. We accept the latter of these views. Property, therefore, is that which belongs to the whole class but is not a part of its essence. Thus *growing gray* may be predicated of the whole species *man*, but it does not belong to the essence of the species. In this view property is an accidental but invariable accompaniment of the essence.

Accident is separable from the essence, does not always attend it. It pertains to a part but not the whole of a class. Accident is another name for that which belongs to a sub-species, in respect to which it is a universal; *e. g.*, *being blind* is an accident of species *man*, but is predicable of the whole sub-species *blind men*, and is a Universal in respect to that sub-species.

There has been much dispute as to what is the nature of the Universal. What is that something which is common to a number of objects, in virtue of which they are grouped into one class, and designated by a common name? Upon this point there have been three theories, known as Realism, Nominalism, and Conceptualism.

I. *Realism.* The oldest of these theories is Realism, which holds that the Universal is a real thing, an actual substance, one numerical entity which pervades all the individuals of a class and gives unity to it. Thus in the class *man*, Realism teaches that there is one entity, one actual substance, *manhood*, pervading all the individuals of the class and giving them all the peculiarities by which they become one class.

> N. B. The term Realism has two uses in philosophy. (*a*) As opposed to Idealism, it maintains the real and substantial existence of the external world. Thus we speak of the doctrine of Natural Realism. (*b*) As opposed to Nominalism; it then has reference to the nature of a universal.

II. *Nominalism.* Arose later than Realism and in opposition to it. It maintains that the unity pervading a class consists only in the fact of its having a common name; that the only universal pervading the class is the name. The universal is merely like a trade-mark stamped upon goods. But yet a trade-mark does represent that the goods bearing it were all made by the same manufacturer. The philosopher Hobbes, who was a Nominalist (known as *nominalior nominalibus*,) went so far as to say that *truth* and *falsehood* arose merely from our having imposed those names upon them.

> N. B. The term Nominalism was at first used for any and every doctrine which was opposed to Realism, and in this sense includes even Conceptualism.

III. *Conceptualism.* Conceptualism teaches that that which constitutes the Universal is *resembling qualities*, that the oneness which pervades a class arises from the presence of resembling qualities in the members of that class. Called Conceptualism

because a concept is that which presents to the mind what is common to all the individuals of a class. It is not a true view of Conceptualism which holds that it is the concept, the mental product, which gives unity to a class; this would make the Universal purely ideal and mental. The unity consists in those common qualities in the object by means of which we form the concept.

The doctrines on the subject of Universals have been embodied in the Latin phases *Universalia ante rem, Universalia in re,* and *Universalia post rem.*

Universalia ante rem maintains that the substance which constitutes the oneness of a class existed prior to the existence of any of the individuals of that class. This is consistent only with Realism, though one form of Realism amounts to *Universalia in re.* The essence of Realism lies in making the Universal a numerical substance, whether existing prior to the existence of the individuals or not.

Universalia in re maintains that the Universal comes into existence at the same time when the individuals of the class are created, and not before. This agrees properly with Conceptualism, though not inconsistent with one form of moderate Realism.

Universalia post rem holds that the Universal comes into existence after the members of the class have been created. This is properly equivalent to Nominalism, for if the name is all that constitutes the oneness of a class, the name cannot have been imposed until after the members of the class had begun to exist. In a certain sense it comes to Conceptualism, for we cannot group objects under concepts until after they have come into being.

LECTURE V.

There are three forms of Reailty corresponding to these three views of the Universal.

(1.) Corresponding to *Universalia ante rem* is *the divine plan or idea* of every class, eternally antecedent to the creation of the class. This plan, this idea, is real, but it is not a substance, and does not make the class formed according to it numerically one substance any more than to build a number of houses according to one plan makes those houses numerically one. The plan of God as to the class *man*, does not make all men numerically one substance.

(2.) Corresponding to *Universalia in re* is the reality of the *resembling qualities* in objects; *e. g.*, there are real points of resemblance between the best and worst of men; they have the same essence. These resemblances are real, but they do not constitute the objects which exhibit them one substance.

(3.) Corresponding to *Universalia post rem* is the reality of *a vital connection* between living things of the same species—*i. e.*, descended from the same pair. This is not mere resemblance, it is a real vital connection; there is a kind of common life which pervades a species descended from a single pair. But this is not the unity of Realism. This common life does not make all men one being. Are father, sons, and brothers one substance because of the same descent? No, they exist independently of each other, are separate substances.

To avoid confusion, we must distingnish between the uses of the word *same;* it is properly equivalent to *identical*, but we often use it as if it were equivalent to *similar*. We say that all men have the same nature; by this we mean that all men have similar natures, not that they have identically the same nature, in the sense in which Realism holds human nature to be one. Similarity excludes numerical identity.

These subjects were discussed by the ancient philosophers, *e. g.*,

Plato and Aristotle, and were taken up again by the philosophers of the Middle Ages and connected with religious doctrines, *e. g.*, with the doctrine of the Trinity.

John Scotus Erigena. In the ninth century appeared John Scotus Erigena, who was an extreme Realist. He was virtually a Pantheist. He held that all beings are manifestations of one substance—God. God is the only reality and all other beings are manifestations of Him. This seems to make the doctrine of the Trinity very simple and comprehensible. The three persons of the Godhead are but three manifestations of the one substance God. If the oneness of the Godhead is the same as the oneness of the human race, all mystery is cleared up. But this explanation goes entirely too far, solves entirely too much. When applied to other matters it creates more difficulties than it solves; it proves that any three men are one because they have the same substance.

Roscellinus. In the eleventh century Roscellinus took the opposite ground to that of Scotus; he was a Nominalist. He said that individuals were the only real substances; that the oneness of the persons of the Trinity consisted in their being included under one name; that three men are one because they bear the same name, man. The absurdity of this is evident.

Anselm. Anselm was a Realist and opposed the Nominalism of Roscellinus. His fundamental principle was that knowledge must rest on faith. His motto was *Credo ut intelligam.* He formulated the Christian doctrine of the Atonement. He sought to establish on rational grounds the essential doctrines of the Christian faith. He opposed Roscellinus as a subverter of the doctrine of the Trinity.

Abelard. In the twelfth century Abelard took a more moderate view, corresponding to *Universalia in re.* According to Cousin, he was the founder of Conceptualism. He took a monotheistic view of the Trinity, making its oneness consist in the existence of resembling qualities.

Occam came later—died A. D. 1347. He supported Abelard, holding that Universals are only conceptions of the human mind.

LECTURE VI.

The opposite extreme from Realism is Nominalism. It is very seldom that any one holds pure Nominalism. Hobbes did so. He says, "It may be deduced that first truths were created by those who first gave names to them. *Man* is a *living creature* because men imposed both these names on the same object."

The fallacy of such positions is obvious. (*a*) The name, so far from being the ground of unity, is imposed only because of the unity. (*b*) It makes truth arbitrary. It makes right and wrong to be what they are, merely because men have agreed to set these names upon them. The tendency of such views is always toward shallow thinking. The Positive Philosophy of our day is founded on Nominalism.

The term Nominalism is often used for Conceptualism or for anything opposed to Realism. The only sense in which Nominalism is true, is that in order to render concepts available they must be named, and in this way the name becomes an ordinary and necessary element in the classification. But it is not the ground of the classification, but is imposed on the class only because of a pre-existing unity. The true theory is Conceptualism, which holds that the oneness pervading a class consists in the resembling qualities, found in all the members of the class. This theory accounts for all the phenomena. That it is the true theory may be seen, because, (1) the other theories may be proven false; (2) it is unaffected by the arguments against the others; (3) it has the support of our intuitive convictions.

Objections to Realism, which maintains that the oneness of a class consists in one numerical substance pervading it. (1.) It is absurd, for a class necessarily implies a plurality of existences, hence it cannot consist of one substance. Such a proposition is at the same time a contradiction in terms and opposed to our intuitions. (2.) It logically tends to destroy the personal accountability of men. If all men are one substance, then what

one does all do. This has been supposed to afford a solution of the question of the fall of the race in Adam and Eve; for if the whole race is one substance, what they did all did. But this explanation goes too far; it makes the deeds of the purest saint on earth to be those of the vilest wretch, and *vice versa*. Thus Realism is wholly subversive of personal and moral accountability. Therefore it vitiates, not only Theology but Ethics, for the principles of Ethics underlie Theology. If all men are one substance then the acts of "the man Christ Jesus" are the acts of every man. (3.) Realism springs from and leads to Pantheism. For if every class is pervaded by one real numerical substance, then the highest class, *summum genus*, must be so pervaded. But this is to make all things, creator and creatures, one, which is Pantheism. This does away with moral evil, for whatever is done is done by God. It gives rise to Fatalism, for, according to it, what God does he does not do of free-will, for he is not a free agent, but only a sort of Infinite Genus, working itself out indefinitely. All Realists are not Pantheists, but one cannot hold these principles without laying the foundations for Pantheism. Realism and Pantheism tend materially to produce each other.

LECTURE VII.

We now come to Metaphysics proper. What is Metaphysics? We may at the outset give a definition that would be clear, though not distinct or adequate; it will, however, serve as a good starting point. Metaphysics has been used to include departments of knowledge that are now studied separately.

Metaphysics=*μετα-φύσις*. *φύσις*=the nature of a thing, that which makes it what it is, which makes an object of one kind different from one of another kind. When we speak of "God, Man, and Nature," we include the whole universe. Nature, the sum total of all physical existence, together with its laws, forces, etc. *μετα*=along with, after. *τα μεταφυσικά* may then have meant either that which was to be studied after Physics, or it may mean that which should be studied along with Physics. We must keep in mind the distinction between Physics and Metaphysics. Physics is the science of the material, of the laws and forces which control body; it deals with masses occupying space. In contrast to this is Metaphysics.

(1.) The first definition of Metaphysics made it the science of the non-corporeal or non-physical. This is the broadest definition of Metaphysics; it was accepted for a long time. Extensively, it includes all the sciences except the Physical, those which have to do with body and the phenomena of body as such. Intensively, it is the science of the non-corporeal. In this sense Metaphysics includes Psychology and all the mental sciences. Sir William Hamilton's Metaphysics is really a system of Psychology. To understand nature we must understand the two provinces of the material and the non-material. The latter is the world of mind or spirit. Metaphysics included whatever belonged to this.

(2.) Metaphysics is the science of those truths and laws which underlie and condition all the phenomena of matter and mind. To these belong the axioms of Mathematics, and such propositions as, "Every effect must have a cause." These would be

true, even were there no matter, or substance, or being, in existence. This definition excludes Psychology—*i. e.*, its extension is less; it brings in the additional mark, "relating to those truths which underlie and condition all phenomena"—*i. e.*, its intension is greater. Note that as intension increases, extension decreases. In this sense Metaphysics includes Pure Logic, which deals, not with facts, but with the laws which condition facts. When we study Reasoning, we are studying a psychological fact, but if we go still further back we come to the region of Metaphysics, when we discover the laws according to which all reasoning must proceed—*e. g.*, the law of Excluded Middle, etc. Ethics is partly metaphysical, partly psychological, and partly practical. As far as it deals with the mind it is psychological. Mathematics is essentially metaphysical. These metaphysical sciences do not prove any actual being, but they underlie and condition all others. They do not give us the knowledge of bodies or events; but they prove that bodies must occupy space, and events occur in time.

(3.) In its strictest sense, Metaphysics is the science of the laws which underlie and condition all being as such. The laws of Cause and Effect, Substance, Space, Time, Infinity, etc., are laws which condition being as such, and belong to the sphere of Metaphysics. This narrows it down so as to exclude Psychology, Logic, Ethics, and Mathematics.

LECTURE VIII.

Confining ourselves to this third and last definition, we find that Metaphysics=Ontology, or at least the Metaphysical side of Ontology, which treats of the laws which condition being. The other side of Ontology treats of things which are, of actual being. Note how these definitions of Metaphysics advance, intensively and extensively. As the intension increases the extension decreases. As we add marks we reduce the number of sciences included under Metaphysics. According to the first definition, Metaphysics included all the sciences except the physical. The second definition excluded Psychology; the third excluded Logic, Mathematics, and Ethics. Notice also the advance in the clearness of the definitions. Some have denied that Metaphysics is a science, because we can give no very clear definition of it. But an adequate definition, so far from belonging to the beginning of a science, is the last thing attained. The reason of this is that in order to form an adequate definition of any science, we must be thoroughly acquainted with all the phenomena of that science. Logically that should come first in a science which is most necessary to the complete development of that science; chronologically that is first which comes first in the order of investigation. So that definition is logically the first, but chronologically the last thing attained in the study of a science.

Is Metaphysics a Formal or Material science? It is Formal, not Material; Psychology is a Material science. By a material science is meant one that deals with actual being. But the principles of Metaphysics are true even were there no real being. It is true that every event must have a cause, but this does not imply that there ever was any event or any cause. In common language when we speak of material sciences we mean those that deal with matter. But Material as distinguished from Formal sciences, are the sciences of actual being. In this sense Psychol-

ogy is as much a Material science as Chemistry, for it treats of mind, which is actual being.

Does Metaphysics class with the *à priori* or *à posteriori* sciences? It belongs to the *à priori* sciences, because its truths are seen to be true without proof from experience. We cannot prove by experience that every event must have a cause, but it remains true whether there be any experience or not. Therefore this is an *à priori* truth, true from the very nature and conditions of things.

Are the truths of Metaphysics necessary or contingent? Necessary, as laying down that the contrary of which is impossible. All questions concerning actual existence are contingent, because dependent on Will. But these truths of Metaphysics depend on no Will, and are therefore necessary.

Is Metaphysics a deductive or inductive science? It is deductive, because it starts with general *à priori* truths. It proceeds from general laws to particular instances. The truths of Metaphysics become major premises in an innumerable number of reasonings. The judgment, "Every event must have a cause," is the major premise of countless syllogisms, often when the reason does not recognize the fact. These Metaphysical truths furnish the most general and comprehensive major premises.

Is there any sense in which these truths are inductive? They can be called so only in a narrow and secondary sense, having reference to their formulation and proper statement. For example, we do not believe that God must have had a cause, but that every event, *i. e.*, every change, must have had a cause. Induction then has a place, not in proving these truths, but in testing the statement of them, whether they are accurately stated.

LECTURE IX.

In regard to this question of the place of induction in the statement of Metaphysical truths, notice that induction is *à posteriori* and proceeds from particular facts to general laws. But we do not get the principles of Metaphysics in this way. We do not reason that every event we have ever noticed had a cause, and that therefore all events must have a cause. No inductive process can establish a necessary truth. Induction can have no place in the discovery of metaphysical principles. Nevertheless, there is an application of induction to intuitive truths in the comparison of definitions. Thus it has been common to say that every *thing* must have a cause. But if this be true, the first cause must have a cause. By induction we see that our premise is either false or incorrectly stated, and amend our proposition to "Every event, *i. e.*, every change, must have a cause." But God is not an event or change, therefore the First Cause need have no cause.

What is the relation of Metaphysics to Psychology, Logic, and Ontology? Metaphysics emerges from Psychology, because in the study of Psychology we come to the knowledge of these metaphysical truths. Logic has a metaphysical element in as far as it treats of the laws which condition thought; but as thought is an operation of the human mind, Logic is founded on Psychology. Any science, however, to be studied properly, must be studied logically, and in this way Logic interpenetrates all the sciences. True Ontology has two elements, the *à priori* and *à posteriori*. The *à priori* element discovers the conditions and laws of being, but does not tell us whether there is any actual being. We cannot say that the universe was constructed by *à priori* laws, for these laws would still be true if there were no universe. They only condition being, provided it exists. The *à priori* element then, is insufficient and we must add the *à posteriori*, which tells us whether there is any actual being, and if so, what it is. This

is done by the psychological power of cognition, by which we know the actual state of facts. We must first ascertain *à priori* laws and discover necessary truths and then apply these to what we know *à posteriori* of the facts in any particular case. In this manner these sciences intermingle with each other.

All *à priori* truths are intuitive; are they known in the concrete or in the abstract? They are known in the concrete. Men do not recognize the general truth, "Every event must have a cause," until their attention has been called to it. But whenever an event occurs they indicate their conviction that it must have had a cause by seeking for a cause. Even those who formally deny the law of causation will be found searching for a cause of any event in which they are interested. We must judge of men's convictions by their actions as well as by their words. It is the business of philosophers to formulate these convictions into general laws. When these are correctly formulated we intuitively recognize them as true. This puts our knowledge in a shape in which we can use it.

We must distinguish between intuitive truths and intuitive objects. A truth must always be a proposition; there cannot be a truth without an affirmation or a denial—*i. e.*, without a proposition. Objects, on the other hand, exist and are perceived to exist by the intuitive faculties. Objects are either external or internal; the former are perceived by sense-perception, the latter by self-consciousness. The proposition, no two straight lines can enclose a space, is an intuitive truth; a tree is an intuitive object. We must also distinguish intuition as a mental act from intuition as that perceived in the mental act. The word "intuition" may be used subjectiyely, to denote the act of the mind in "intueing;" or objectively, to denote the truth "intued." Thus we say that we have an intuition of a truth—*i. e.*, intuitively know it to be true; and we say that the axioms of mathematics are intuitions.

LECTURE X.

The term "instinctive" is often applied to these metaphysical truths. Let us see what there is in instinct analogous to and what different from intuition. Instinct is that power whereby conscious beings perform rational acts and accomplish rational results, (*i. e.*, such as the highest reason would devise) without any insight into their rationality. The bee, though it constructs its cell on scientific principles, does not know why it constructs them as it does; it has no reason for so doing. It comes to a rational result without any process of reasoning. An engineer builds a bridge by reasoning over all the details as to the strain it will have to bear, etc., and lays his plans accordingly. The two cases agree in this, that in each a rational result is arrived at. But the bee never goes through any such process of reasoning, hence we find that the bee makes no improvement in the construction of its cell, while the man is constantly making improvements in his bridges. In the case of the bee, then, we have a rational result arrived at without any insight into its rationality. This is the working of Instinct. In infancy Instinct predominates, and we do things without knowing why. But there is this difference between animals and men:—men as they grow older come to understand their instincts, and to perform rationally the actions which they at first performed instinctively; but this never happens in the case of animals. Now as we come to the knowledge of these intuitive truths without reasoning in any way, Intuition so far agrees with Instinct, and these truths may so far be termed Instinctive. But the difference lies in the fact that when we see one of these intuitive truths we have a rational insight into it which the bee and the beaver never attain to in respect to their instincts, however keen these may be. Hence they never advance or improve, while the human race is always on the move. Man comes to understand his instincts and get above them; the brute never does.

These truths are called (*a*) Regulative, because rational beings are and must be controlled by them, even though they attempt to act in opposition to them. They master us whether we master them or not. It is the business of an educated man to know these truths by which he is governed. We must beware of thinking, with the Kantians, that though we are and must be regulated by these truths, we have no evidence or guarantee of their reality. We must have complete confidence in that by which we are governed; we are to be regulated only by that which has reality.

(*b*) These truths are called Transcendental. They were so named by Dugald Stewart, because they transcend the senses and experience. They are supersensual; they are known by a faculty above the senses, are seen by the inward eye of reason. This has no connection with Transcendentalism, which is a general name for a German system of philosophy which reduced everything, mind, matter, man, and God, to one substance. This is Monism.

(*c*) Reid called these truths First Truths, because they are the primary truths on which all reasoning depends. They are our self-evident major premises. We must start from them.

(*d*) They are known as Maxims, because they are truths of the first importance, (*maximæ sententiæ.*) Maxim now has a wider significance, meaning any principle on which we may act. In this sense it includes not only these intuitive principles, but also those which we derive from experience.

(*e*) They have been called Axioms (ἄξιος,) because of their eminent dignity. They are most worthy of belief, as being self-evident.

(*f*) Fundamental Laws of Human Intelligence. They were so called by Dugald Stewart, and it is a just designation, for they are such. They underlie the rationality of all men. If a man cannot discern their truth he is considered irrational.

(*g*) Truths of Common Sense. The Scottish School were known as the Common Sense Philosophers. Reid, who had so much to do in starting trains of thought that led to great results, gave it this name because its doctrine in regard to external ob-

jects (viz., that they are realities,) was in accordance with the common sense of mankind. Any philosophy which asserts these truths as intuitive is a common sense philosophy. Reid was opposed by Hume.

Common Sense has two meanings in Metaphysics; (1) subjective, meaning the faculty which discerns these truths; (2) objective, meaning the sum of the truths thus known.

The term "common sense" has two other uses which belong to common life, standing (1) for native shrewdness or tact; (2) for that the absence of which makes a man an idiot.

LECTURE XI.

Reason is the supreme faculty in man, the highest intelligence. Coleridge thought that the word "Reason" meant this faculty only when exercised on supersensual truths. He used it in contrast to the Understanding, which he considered equivalent to our Discursive Powers, by which we proceed from truths given to other truths founded upon them. The contrast is somewhat arbitrary, and not upheld by the best literary and philosophic usage.

Dr. Wayland said that Reason is not the faculty which perceives intuitive truths, but is the same as Reasoning—*i. e.*, as the Discursive faculties, by which we go from judgments given to others founded upon these. He was misled by the fallacy of Etymology.

Reid says that Reason is (1) the power which discerns intuitive, supersensual truths; (2) that by which we proceed from these truths to others founded upon them. This is a correct account. We see, therefore, that reasoning is carried on in the light of these intuitive truths.

By Understanding we mean the sum total of the elements of human intelligence.

We have seen the distinction between the Chronological and the Logical order of ideas. That is first chronologically which comes first in point of time; that is first logically which preconditions what follows. These do not always agree. For example, the child at first has a knowledge of body as extended, but afterward discovers by Reason that all extension must be extension in space. The mind cognizes extended substances before it does pure space. But logically, Space preconditions Body; in order that Body should exist there must be Space for it to exist in. So also the child is first conscious of a succession of events, and then discovers by Reason that every event must occur in Time.

Logically the idea of Personal identity precedes that of Mem-

ory; chronologically the order is the reverse. This distinction is used by Cousin against Locke. Locke held that we know Space by our sensation of extension in the body, and Time from our experience of the succession of events. But mere experience, whether of the body or of succession, cannot give us that which we know, viz., that Time and Space are preconditions of events and bodies. What gives plausibility to Locke's theory is the fact that, while our knowledge of Time is not *derived* from that of succession, still the idea of duration is first *brought before the mind* by our experience of the succession of events. So in regard to the idea of Space, the idea of Body as extended does precede that of pure Space. But though our experience of succession and of Body do bring the intuitive ideas of Time and Space into view, they by no means furnish premises from which these ideas may be drawn. Here the distinction between the logical and chronological order of ideas comes into play. Locke went according to the chronological, instead of the logical order. Our first thought of Space, he argued, is brought about by our experience of body; therefore the idea of Space is derived from that experience. This is plausible, but false.

Locke held that we get all our ideas from Sensation and Reflection,—reflection upon our sensations. There is a sense in which we might use Reflection which would make his statement true; but Locke did not use it in this sense. By his doctrine he meant to overthrow the doctrine of Innate Ideas.

LECTURE XII.

Duration is brought to view by memory, which brings to the mind some past event. This involves a succession of events, which implies Time. If, then, we abstract the idea of duration from that of succession we get the idea of pure Time. So in the case of Body and Space. We first know some body as occupying space and then by abstraction we get the idea of pure Space. So far it might be said that we know Space and Time by experience, but as soon as we know them in the abstract we see at once that Space and Time are and must be preconditions of all bodies and events. This goes far beyond experience. We judge also that Time and Space are realities. They are (1) extra-mental realities, *i. e.*, they exist whether the mind exists to perceive them or not; they are not, like the truths of Psychology, dependent on the existence of the mind. (2) We discern that they are illimitable; we can place no boundary to them even in imagination. We cannot conceive of a place where Space does not exist, nor of a period when Time shall have ceased. They are infinite. (3) We know them as necessary; their non-existence cannot be believed or conceived. Could experience enable us to assert this? (4) They are the void containers of all beings and events. All that exists must exist in Time and Space. (5) They are continuous. We cannot take any portion of Time and separate it so that it shall not be continuous with other time, nor can we so cut off any portion of Space that it shall not join other space. Space is continuous in three directions—extensive; Time is continuous in one direction—protensive. (6) They are not mental forms. This is in opposition to Kant, who thus threw doubt on their objective reality. He argued that "as it is impossible to conceive of events taking place and objects existing otherwise than in Time and Space, therefore these are mental forms, and merely mental forms." But the premises do not warrant the conclusion. We conceive them as realities. If we admit Kant's conclusion it

becomes a premise for conclusions of much greater importance. If Space and Time are but mental forms, why may we not conclude that everything contained in Space and Time are also but mental forms—*i. e.*, why is not Idealism true? As the objects which Space and Time contain are realities, so they, whatever mental forms they may involve, are also realities. Before going further let us see in what sense we hold to innate ideas. Locke derived these ideas from experience; because, chronologically, experience precedes the abstract idea. No one holds that at birth we cognize the ideas of cause and effect, space, time, etc., in the abstract. These ideas are innate in the same sense that Reason is innate. The mind is born with the seeds, the potentialities of these ideas. They are not to be derived from experience; there must be an original potency. Experience may suggest and be the occasion of the perception of these truths, but no more than this.

We have settled that Space and Time are realities, extramental realities. But when we come to class them with other realities we find difficulty. They are not substances, for they have no power; neither are they causes, for all causes must be substances. They afford a sphere in which things having power may develop that power. Some have maintained that they are mere relations which exist between beings and substances. But this is unsatisfactory, for we are convinced that Space and Time would exist were there no beings or substances in existence. Sir Isaac Newton said that Time and Space are constituted by the eternity and immensity of God, that by existing always and everywhere God constitutes Time and Space. Here we come to questions beyond the reach of our faculties. We are not prepared to affirm or deny Newton's statement. We know that Time and Space are entities, but as to what sort of entities they may be, we are not prepared to give a judgment.

There has been a theological question as to the relation of Time to the cognitions of the Divine mind. Cowley has a hymn in which he speaks of there being no time with God, but only "one eternal Now." So in the Scriptures we find such expressions as, "Before Abraham was, *I am*," "One day is with the Lord as a

thousand years, and a thousand years as one day," etc. The doctrine founded upon these passages is that there is no succession in the Divine knowledge. In a sense this is true, for God is omniscient and knows all that is, has been, and shall be, by an all-grasping intuition. In this sense there would be no sense of succession in the Divine mind. Still, Time is a reality and all events occur in Time, and God must know them as they occur.

Cousin gives two very neat sets of contrasts,—between Body and Space, and between Succession and Time:

(1.) Body is limited.	Space is unlimited.
Body is contingent.	Space is necessary.
Body is a presentation of the senses and by the senses.	Space is a rational conception.
(2.) Succession is limited.	Time is unlimited.
Succession is contingent.	Time is necessary.
Succession is known through our experience in consciousness.	Time is a rational conception.

It is important that we have some tests of intuitive truths, for some men would raise other truths to the rank of the Intuitive.

(1.) These truths must be self-evident.

(2.) They must be universal, *i. e.*, all men must show that they are governed by them.

(3.) They must be necessary. Original necessary truths are also self-evident. The Propositions of Euclid are necessary, but not self-evident.

(4.) They must be simple; not capable of being resolved into simpler truths.

LECTURE XIII.

The contents of Time and Space are Substances, Causes, and Effects.

According to its etymology Substance is that which underlies qualities (*id quod qualitatibus substat.*) Its differential marks are three.

(1.) Substance has being; being is *summum genus* with reference to substance as well as to all other things.

(2.) Substance has permanence,—being+permanence. This distinguishes it from an instantaneous act, which has being but not permanence. Having these two marks, we get our first subordinate genus. Permanence does not mean eternity; all created things begin to be. Permanence means duration or continued existence for a longer or shorter time. Force, though said to be indestructible, is destructible by Him who created it. We must not suppose that where there is any change there cannot be permanence, for there may have been permanence prior to the change. If permanence implied eternity, then there could be but one substance; this would be Monism or Pantheism.

(3.) Substance has power. In this it differs from Space and Time. Here we have the second subordinate genus. But, it may be asked, is not matter inert? Suppose it be so, it still has power; it has the very *vis inertiæ* which makes it inert; it has attractive powers, chemical powers, etc. Every vital property is a power of that substance to which it belongs. Qualities are merely powers, so that every material substance has power. Time and Space have no power.

But how shall qualities be distinguished from substances? This brings us to the fourth mark.

(4.) Substance must be an *ens per se existens*, an entity existing by itself. Substance has its being not by inherence in any other substance. We are beings distinct from God, though not independent of Him. Qualities are not so, they exist only by inher-

ing in some substance; they cannot exist independently. Substances may depend on other substances; all creature substances depend on God. This statement has importance with reference to the consequences that flow from its denial. If we hold that beings cannot exist by themselves as created and sustained by God, then they must be manifestations of God, *i. e.*, all things must be one substance, in which case there could be no personal responsibility.

Substance, then, is that which has being, permanence, and power, and is an *ens per se existens.* Compare with this, Cousin's definition: "*Per substantiam intelligo id quod in se est et per se concipitur; hoc est, cujus conceptus non indiget conceptu alterius rei a quo formari debeat.*" "By substance, I understand that which exists of itself and is conceived by means of itself; that is, that whose concept does not need for its formation the concept of any other thing." This would agree with our definition but for the last clause, which makes substance that which does not need any other substance for its formation. This cuts off all creatures from being substances and mingles all things with God. It denies that dependence on God for creation and preservation is consistent with a separate existence.

We saw, that, according to its etymology, substance is that which underlies qualities. Subsistence has the same etymology, but has a different use. It has been confined by theologians to that somewhat which constitutes personality; several subsistences may be united in one substance, as in the Trinity, in which there are three subsistences, three persons, but only one substance. On the other hand there may be two substances with but one subsistence or personality, as in the case of our Lord, who had both a Divine and a human nature, and but one personality. Essence etymologically denotes being or substance, and is often used in that way, as when we speak of the Divine essence. But in logical and philosophical usage it means the requisites to the being of any class or species, and derivatively from this, the requisites to the being of any individual object. The essence is equal to the genus plus the differentia. Thus where we have animality (genus) and ration-

ality (differentia) we have the essence of a man; take either of these away and the essence disappears. Therefore, to state the essence of an object is the same as to define it.

Some qualities of substance are essential, some non-essential. Attributes are the essential qualities of substance; when they are present, the thing is present; when they are wanting, the thing is wanting.

Our definition of substance as an *ens per se existens* is opposed to both Realism and Pantheism. If substances had not a separate existence Realism might be true; so also, if substances had not a separate existence, Pantheism might be true, *i. e.*, all substances might be merged in the one substance, God. (We must distinguish between separate existence and absolutely independent existence.) On the other hand, if either Realism or Pantheism were true, substance could not be an *ens per se existens.*

LECTURE XIV.

How far and in what manner are substances knowable? It is a common statement that substances are unknowable, that qualities only can be known, and that we *infer* that there is a substance in which these qualities inhere. The true doctrine is that substance is knowable in and through its qualities, which are its manifestation. Substance and qualities are mutually inherent, they inhere in each other. Can we know a substance apart from its qualities? No; we cannot even conceive of such a substance. We may abstract substance from its qualities in thought, but not in actual being.

Substance is known, not merely representatively, but presentatively. The knowledge of substance is a presentative knowledge. It is not mere mental representations that we know; we know *things*. Locke defined knowledge as "the agreement between our ideas and external objects." But how can we know this agreement unless we first know the objects themselves? We must know things. It is not a mere inference by which we arrive at the knowledge of substance. We sometimes hear it said that we do not know mind, but only certain experiences from which we infer the existence of mind. But we know indivisible self as the first and truest substance. Every one that is conscious, is conscious of himself. We know ourselves as thinking, feeling, willing, and do not arrive at our own existence by inference. Kant held that there are two elements in all our knowledge, the phænomenon and the noumenon, the manifestation and that which gives rise to it. These phenomena are subjective and known; the noumenon (by which he means substance) is objective and unknown. He holds that we know only the phenomena, but do not know whether there is any reality corresponding to them, or whether they rightly represent the noumenon. His favorite

phase is that "we do not know things as they are in themselves." But if we know things at all we must know them as they are, although we may not know all about them. Our knowledge may be imperfect, but it is still knowledge. If we were to press Kant's proposition a little further it would be impossible for us to have any knowledge, for we certainly cannot know things as they are *not* in themselves; therefore if we do not know things as they are in themselves we do not know them at all. Kant's noumenon is unknowable; his theory would lead us to infinite subjectivity, *i. e.*, to Idealism. There is a great difference between absolute ignorance and imperfect knowledge. Cousin said that Kant's view of mind made it "a mere logical thread on which to string the affections of consciousness." According to this view we do not know that our minds exist; the idea of our being is not a matter of immediate knowledge, but a mere logical tie which gives unity to the affections of which we are conscious. Sir William Hamilton successfully combatted many of Kant's skeptical ideas concerning our perception of mind, etc. But he took from him a very vicious mode of thinking, viz., his doctrine of the Relativity of Knowledge. He says we do not know whether the mind sees objects truly or not, for we do not know how much of our knowledge comes from the object itself, and how much from the mind. We do not know whether our faculties are so constituted as to interpret things to us truly. He illustrates by supposing that we see a book; we may suppose, he says, that our knowledge of the book has twelve elements, is twelve-fold; and we suppose four of these elements to arise from the book itself, four from the perceiving mind, and four from the intervening medium; but we cannot tell which of the twelve elements of our knowledge come from the mind and which from the object. But this is equivalent to saying that we do not know anything about it, for we could not be sure that any of the twelve elements arose from the object itself. This is another form of the theory that we do not know things as they are in themselves. Its plausibility lies in the fact that we never know so much of any object but that we might know

more, but what we do know, we know that we know.' It is one thing to know really and truly, another thing to know wholly. We sometimes make mistakes and we come back to what we know in order to correct them; we are not omniscient, but we could never correct our errors if we knew nothing.

The skeptic who started Kant and Reid upon new and fresh analyses of our faculties was Hume. He compelled them to examine the very basis and limits of our knowledge. He said that all that we really know is our impressions and the ideas that arise from them; that self was merely the unity of these impressions. With him it was an *à priori* impossibility that we should know anything outside of our own minds. But in opposition to this, we hold that the spirit, the Ego, is present in all impressions and all consciousness, that it is not a mere thread of connection but an underlying substance. In every act of knowledge we know ourselves as knowing, and know objects as being something else than our own impressions.

In like manner, John Stewart Mill reduces both mind and matter to "permanent possibilities of sensation." Whether we shall consider mind a part of matter or matter a part of mind, he made dependent on the starting point of the theorist. He himself leaned toward Materialism, but it was an idealized materialism. But if we identify and confuse mind and matter, it makes little difference whether we reduce all mind to matter or *vice versa;* both courses lead to Monism.

Berkely held that the *esse* of a thing was *percipi, i. e.,* that our perception of one thing gave it its existence. This is Idealism, and is more elevated than Materialism, but both come to the same thing in the end, viz., to Monism. Dugald Stewart says, "It is not matter or body which I perceive by my senses, but only extension, figure, color, and certain other qualities, which lead me to infer that there is something extended, colored, etc." The same thing he holds to be true of mind.

But self is directly known; we are immediately conscious of ourselves as thinking, knowing, feeling; if we do not know mind except by inference from its qualities, we do not know it at all. We know body as having color and figure, or we do not know it

at all. We wish to avoid all theories which undermine the reality of our knowledge. Body is known through its qualities, mind through the states of conciousness. If we do not know them by their manifestations or qualities, it is clear we do not know them at all.

LECTURE XV.

N. B.—In this lecture "independent"=*ens per se existens.*

The relation of created and dependent substances to the generative Power has always been difficult to define, so that on the one hand, we may not logically be led to deny God's omnipotence, and on the other, to the establishment of the absolutely independent existence of creatures. The tendency is to merge the creature in the Creator, and this is sometimes done in the supposed interest of religion. To this end it is thought necessary to make God the agent or power in everything that is done. Some go so far as to say that the Divine agency is concerned in bad actions as much as in good. Such a doctrine is monstrous, and leads us to the same point with Hume, viz., that the soul is but a mere series of impressions, and that we can have no knowledge of it. Now, whatever our logic may seem to demand, we may be sure that when it brings us to the conclusion that God is in any sense the author of evil, there must be some flaw in our reasoning. There is at present a large class of men, some dealing with matter, some with mind, who adopt modes of thought and reasoning inconsistent with the idea that there are independent substances. They say that there is a *continuous* action of God. But when we come to this point we are reasoning erroneously. It is one thing to be created by God, and quite another thing to be merely the act of God. It is a power of God so to act as to leave behind the permanent result of the act. Some seem not to understand how they are only the result of God's act, separable both from the act and from God himself. They say they are "the work of God." But "work" may have two meanings; it may mean the act or the result of the act, the finished product which survives the act. This is true of thought as well as of physical actions.

It has been much debated whether there can be any created and dependent substances or causes. The fate of Pantheism

hangs on the decision of this question. Pantheists take the negative side and ask how the work of God can be independent of God. Some theologians have been led to such extreme views in their eagerness to establish the sovereign power of God. But it is entirely erroneous to maintain that the acts of a free agent are God's acts. Man's acts are his own, and God cannot be in any sense the author of evil. Truth is always consistent, and we must believe it to be so, whether we understand it or not. We may not be able to understand how an iron ship floats, but we know it to be so. This is a type of the mysteries of God, which we cannot understand, but yet must believe.

Schelling resolves matter into the equipoise of two forces acting contrary to each other, the resultant of two antagonistic forces. This resolves matter into force, and the force is said to be the force of God, so that matter is the Divine agency. Dr. Hitchcock also holds that matter is merely force. This reasoning tends to make all existence a mode of Divine action.

Force is some sort of activity, potential or actual, and must be the activity of some substance. We admit that matter has force, but not that it is force. It is a fundamental judgment of the mind that force must be the force of some substance. We talk familiarly of force as an entity, but we feel that it must inhere in some substance. If matter is force, whose force is it? It must be the force of some substance, and if not of created substance, then of uncreated substance—*i. e.*, of God. But if matter is Divine force, why will not the same reasoning apply to mind, and why may not all mind be simply a mode of the manifestation of the Divine Being? We must be careful how we admit that matter is force.

Some of our best scientists hold that the "laws of nature" are but uniform modes of Divine activity; *e. g.*, that when a magnet exercises attraction, that attraction is not a force belonging to the magnet, but simply a mode of Divine activity. But the question arises whether this style of thinking does not lead to the conclusion that there are no substances, except God. Substances have power and we insist that the laws of nature are but the ongoing of the powers and energies which God has once for

all implanted in substances. These properties are sustained by God; just as matter has been created by God distinct from himself and yet dependent upon Him, so the laws of matter may be properties given to matter by Him and may act distinct from His acts, and yet be dependent on Him for their continuance. Such a formula is a dangerous thing, for it begins a wrong mode of thinking, and every principle tends to work itself out to its logical consequences. How it comes about we do not know, but we still insist that we are true and proper beings, independent of God, though created and sustained by Him. The system of Evolution and many similar systems are really equivalent to Monism. They all imply that the creature is not independent of the Creator, that all things are but the unwindings of the Divine activity. Against all these speculations which argue the non-existence of dependent substance, we maintain:

(1.) That they are wholly unsustained by proof.

(2.) They are contradictory to the intuitive, primitive and universal judgments of the unperverted mind. We can study the mental sciences with as much accuracy as the physical sciences, for we can always look into ourselves and find out the truth. Even when men argue themselves into false theories, their actions betray that their intuitive convictions tell them differently.

(3.) It is in the highest degree reasonable to suppose that an omnipotent God can create substances distinct from himself, which are yet dependent on him for continued existence in any condition, especially in a normal state. We recognize this in regard to ourselves. We *do* and *make*. Although man has no power to create out of nothing, he can mould over again into new forms that which already exists. This is even more true of mental acts than in the sphere of matter; especially is it true of the creative imagination. This distinction is marked in the two Greek words πράσσω and ποιέω. πράσσω =to do—*i. e.*, to perform an instantaneous act terminating in itself; ποιέω=to make, *i. e.*, to leave behind an enduring product, a ποίημα.

(4.) The doctrine of the existence of independent created substances is in accordance with the representations of Scripture,

which make God distinct from his works, and his works distinct from each other, but yet dependent on God. Even if we do not recognize the Scriptures as authoritative, still they record the opinions of those who have studied the subject of the relations between the Divine Creator and created substances.

(5.) The absurd conclusions which flow from the contrary hypothesis disprove it. These consequences are Fatalism and Pantheism. We cannot adopt such doctrines without subverting our intellectual constitutions.

LECTURE XVI.

We take up next the Relations of Substance—the relations of one numerical substance to itself at different times, and of different substances to each other. The former is the relation of Identity; when a given object is presented once and again, and recognized as the same, we have the idea of identity. Identity supposes numerical oneness of substance, while Equality and Similarity involve a plurality of substances. Sometimes it is difficult to tell whether the relation is that of identity or of similarity. Identity arises from permanence of substance. In the case of two circles of equal diameters we have similarity and equality, but not identity. If a substance has permanence it continues, and is a numerical unit while the permanence lasts. Transcendentalists have tried to twist identity into imperishability or eternity, but identity no more implies eternity than permanence does.

President Edwards was led into reasoning on this subject, which, if carried out, would destroy morality and moral accountability. In his attempt to explain how all men sinned in Adam, he argues that if the existence of created substance in each successive moment be wholly the effect of God's immediate power in that moment, without any dependence on former existence, then the continuance of substance from moment to moment is as much a creation out of nothing as the first creation of that substance, and is not the continuance of the same existence. Therefore what exists at this moment by this power is a new effect, and therefore a man is not the same, though precisely similar, in two successive moments. As an illustration, he instances the image of an object in a glass, which though precisely similar in successive moments, is really newly created every instant, as new rays come from the sun, and does not remain numerically the same. As with images, so with bodies; they must be wholly renewed every instant.

This theory resolves all substances into Divine acts and entirely does away with identity. This is all for the purpose of showing that there is no more identity between myself as I am now and myself as I was a few moments since, than there is between me and any other member of the human race; so that Adam's sin is as much my sin as my own sin committed yesterday is mine. This leads to the conclusion that we cannot be accountable for any sins committed in the past. The question of the Origin of Evil will probably never be solved. We must accept the fall of the race, the sin connected with it, and the present existence of sin as facts, though we cannot explain them.

We know of three classes of being,—inorganic matter, organic matter, and mind or spirit. In what does the relation of identity consist in each of these cases?

(1.) Identity in inorganic bodies consists not so much in identity of material particles as in sameness of relation between the particles. For example, a stone which has been partly worn away retains its identity, but a block of wood that is burned to ashes does not. Those changes which are compatible with the continuance of the essential attributes are not inconsistent with identity. In the case of a human structure, as a ship, the whole material may be changed by successive repairs, and yet, when this takes place gradually, the identity remains. The famous frigate "Constitution" underwent so many repairs that finally it was believed that not a single plank of the original structure remained; but yet it preserved its identity. But had it been burned and reduced to ashes, these would not have been the ship "Constitution." There is a puzzle as to a knife which should lose its blade, and, when this had been replaced, should require a new handle; would it retain its identity?

(2.) In organic bodies, identity is still less dependent on the sameness of material particles. For example, the material particles of the sapling are entirely different from those of the oak of a century's growth, and yet they are the same tree; the infant has not the same substance as the man, yet they are the same person. Physiologists tell us that the matter in our body changes entirely every seven years, but in spite of this our bodies

do not lose their identity. The identity of living things consists in the identity of the living organic principle. This has a bearing on the doctrine of the resurrection of the dead. It would seem that the bodies of the dead could not rise from the graves with the same material particles; for many of these particles are taken up by plants and through them pass into the bodies of other men or of animals, so that these same particles may be in the body of some other man when he dies. Now, if the bodies of the dead must have the same material particles at the resurrection as at death, great complications will arise; but if the oneness of living beings consists in oneness of the organific principle which is continually acting in the body and making it what it is, then the identity will be preserved and the bodies of the dead may have the same form and features which distinguished them while living.

(3.) We come to identity in the realm of spirit—*i. e.*, to Personal Identity or Personality. This is the continued, unbroken existence of that in us which we call self. What are the differentia of personality? Wherever there is intelligence, will, and the moral faculty there we have personality, there we have a being which is a person. Wherever there is a conscience there is a person; but there may be two intelligences and but one person, as in our Lord Jesus Christ. Personality also applies only to substance, but substance does not limit personality, or personality substance; *e. g.*, our Lord combined two substances in one person, while in the Trinity there are three persons and but one substance. If it is asked why we call the three members of the Trinity persons, we reply that we get it from the Scriptures. Marks of Personality. (*a*) Wherever the personal pronouns I, Thou, He, may be applied literally we have a person. These pronouns belong only to persons; all other uses of them are merely figurative. (*b*) Whether the person be a substance or a somewhat in a substance, it is the source and object of personal, voluntary, moral, and responsible actions. All will agree that in the Bible, Christ, the Son of God, is exhibited to us as a person; so also with the other two persons of the Trinity. (*c*) A person is properly an end in himself and has rights in himself;

whoever uses a person as merely a means to an end commits a wrong. This is the point of the distinction between persons and things; a person is an end in himself, a thing is not. A man has no right to treat his slave as he would his ox; for the slave is a person, the ox a thing. Whoever has a man in his possession must not treat him in such a way as not to recognize his personal rights. The master who ill-treats his slaves deserves to be punished and is an object of popular indignation. We have, then, three tests of personality: (*a*) The pronouns I, Thou, He, may be applied. (*b*) A person is the source of intelligent, voluntary, and accountable actions. (*c*) A person is not a mere thing, a mere means to an end outside of itself, but is an end in itself. However, a person may forfeit his personal rights by crime.

LECTURE XVII.

Substance involves Cause, for substance has power, which is but another name for causality. Causation implies substance or being, either potential or actual. Whatever exercises power must be a substance. The subject of Causation is one of great importance, whether considered intrinsically as in Metaphysics, or relatively to Ethics, Theology, or Physical Science. This last is mainly occupied in inquiring into causes and laws, so that a true idea of Cause underlies physical science and Physics is founded on Metaphysics.

The nature of Causality we learn by inquiring into the nature of the causal judgment. If we hear a rattling noise, we ask what is the cause of it; and so of any other event; and in this idea of cause we have the notion of power. The causal judgment then is the intuitive conviction of the human mind that every event or change must be produced by a cause equal to the task of effecting it. We say *event* rather than *effect*, for to say that every effect must have a cause would be meaningless, since effect necessarily implies cause; the two are correlative terms. There are other kinds of causes, but the true and proper cause is the *efficient* cause. An effect implies power in the cause. The proposition "Every effect must have a cause" is analytic; the predicate adds nothing to the idea of the subject. "Every event must have a cause" is synthetic.

This judgment is intuitive and not derived by any reasoning process; it has all the criteria of an intuitive truth.

(1.) It is self-evident. By this we do not mean that in its abstract form it is present to every mind; but that when a concrete event or change comes before a rational mind it at once pronounces that it must have had a cause.

(2.) It is universal. All men, even those who formally deny it, are controlled and regulated by it.

(3.) It is necessary. We do not say that some events may

have had causes, but that every event *must* have had a cause. We know that this judgment must be true for all cases and all ages. It is no empirical or inductive generalization from particulars; it goes beyond all experience and is true of all possible cases.

(4.) This judgment is a simple one. It cannot be resolved into anything simpler. Simple ideas cannot be defined, nor do they need definition. Hence the demand of Mill and Brown for a definition is unwarranted.

Some have said that the causal judgment is conditional, because it is only on the condition of events happening that they must have a cause. If there is any truth in this it is unimportant. Some have called this judgment a Hypothetical Truth. They say, "If any event has taken place it must have had a cause." This may be hypothetical in form but not in force. The causal judgment is true whether anything comes to pass or not.

The fallacy of *post hoc ergo propter hoc* is a very common and prolific one. Under it falls the theory of the Sensational School, Hume, Mill, Brown, and the Materialists. This theory maintains that all we know of causality is that one sort of consequent uniformly follows a particular sort of antecedent, and denies that there is any such thing as power involved. To this we reply:

(1.) The intuitive judgment of the human mind is not that one sort of consequent uniformly follows one sort of antecedent, but that every event must have been brought about by some adequate agent.

(2.) Reid in combating Hume brings up a crucial instance. Night has uniformly been followed by day, yet no one supposes night to be the cause of day. We look for a cause adequate to produce the effect and find it in the rising of the sun. The attempts of Mill and others to invalidate this instance have failed.

(3.) The judgment proposed by Hume has not the support of universality. All men do not acknowledge it, nor are their actions governed by it.

(4.) If we are asked what we mean by power, we reply that it is a simple idea and therefore incapable of definition.

(5.) This doctrine of cause consisting merely in the priority of one phenomena to another, is destructive to Morals and Religion. For if there be no such thing as efficient cause, then (*a*) there is no reason to argue from Nature to a great First Cause. (*b*) There can be no evidence that the acts of moral beings are by their own power, hence there can be no accountability. (*c*) There can be no such thing as the discovery of any uniform force in nature. Thus even Physical Laws are shaken.

Professor Bowen of Harvard, in his zeal against Materialism maintains that Mind is the only real cause, and that we have no evidence of power in any material substance. He does not attempt to undermine causality, but only to confine power to mind. But this seems an extreme view. The explosion of a steam-boiler exhibits power which it is difficult to trace to mind.

Sir William Hamilton (Metaphysics, p. 547. Boston edition,) ascribes the causal judgment not to a power but to an impotence of the human mind to conceive of the existence of anything which did not exist before in some shape or other. He says also, (Metaphysics, p. 553,) "We are unable to construe it in thought that there can be an atom absolutely added to, or an atom absolutely taken from existence in general. You can conceive the creation of a world as lightly as the creation of an atom. But what is creation? It is not the springing of nothing into something. Far from it; it is conceived and is by us conceivable, merely as the evolution of a new form of existence, by the fiat of the Creator."

This reasoning is due largely to the Antinomics of Kant, one of which states our inability to conceive of a First Cause, infinite in all his attributes, and yet creating finite beings distinct from himself. According to Hamilton, causality amounts simply to this, that all that we come to know as an effect must previously have existed in the cause. In reply to this, we say:

(1.) That this theory does not solve the problem in hand, it annihilates it. If nothing comes into existence which did not exist before, then the cause of anything is the thing itself in some previous state of existence. If it be urged that this analysis admits change in form, though not in quantity, we insist that

this change demands a cause. This theory amounts to evolution, and is consistent with Pantheism but not with Creation or Cansation.

(2.) The causal judgment is no mere negation; it is not the result of an impotence of mind. It is the strongest kind of thinking, reaching through both Time and Eternity.

(3.) There is no mental impotence which makes it impossible for us to conceive that new existences should come into being by the power of some adequate cause. If man can change the form of that which already exists it does not seem unreasonable that God should create new existences. Grant an almighty Being, and the idea of creation out of nothing is not at all inconceivable.

(4.) This doctrine ends in Pantheism. If nothing comes into existence which did not exist before, then everything must be eternal, must be God; all that is in the universe must have existed before the Creation and in the Creator. This is Pantheism. As far as it denies that anything comes into existence which did not exist before in some other form, it is an evolutional theory. We do not mean at all to imply, however, that Hamilton was a Pantheist; we are merely stating the logical outcome of his theory.

LECTURE XVIII.

Cautionary Explanations :—(1.) The causal judgment is sometimes improperly stated, thus laying the foundation of erroneous logical deductions. If we say "Everything must have a cause," then we must have a cause for God, the great First Cause. "Every effect must have a cause," is true, but analytic, and therefore inadequate. The true statement is, "Everything that begins to be must have a cause."

(2.) The causal judgment is not "Like causes produce like effects," or "The Laws of Nature are uniform;" although these may be, and doubtless are true statements. These may be proved in other ways, but they are not primitive and necessary judgments of the human mind, which admit no exceptions. If we say that it is a necessary truth that the laws of nature are uniform, then we exclude all possibility of miracles, which involve either a suspension or a counteraction of the laws of nature.

(3.) In all or nearly all created causes there is a concurrence of two or more creature agencies to produce the effect. To explode gunpowder there must be both fire and inflammability in the gunpowder. There is probably an exception to this rule in the case of the human will; there certainly is in the action of the great First Cause.

(4.) There are first and second, independent and dependent, original and derivative, free and necessitated causes. First and second, independent and dependent causes are much the same. In a certain sense the mind originates results which may require some other causal agency to carry them out; *e. g.*, the mind of an author may be said to cause the book which he has written. Some extreme theologians have maintained that there is no true cause other than mind or will, created or uncreated. It is true that there are no other discriminating causes, but still the forces of nature are the immediate causes of the effects produced by them. They are second causes, but so also are all human wills.

Others have resolved all causes into the First Cause; they have supposed that God could not rule the world unless he so controlled men that he was in reality the actor in all their actions. It is a sufficient answer to this to point out that it does away with all responsibility. We maintain that we are free, though not independent of God. Prof. Bowen holds that material substances are not causes, that the energy in a plant, for example, is not causal, that wherever there is an effect produced there is the subtle working of mind, either human or Divine. He admits that the human will is a second cause, *i. e.*, a cause created and sustained by the First Cause.

There are free and necessitated causes. The engineer is a free cause; the engine is blind and has no self-control and is a necessitated cause. One is intelligent and free; the other has neither intelligence nor will.

An imminent cause is one, the effects of which do not pass over beyond the agent itself; *e. g.*, the vital forces have no effect outside of the body. Transient causes are those whose effects pass over to something beyond the agent. Some say that all causes are transient; but we know that the human will acts within itself. Others say that all causes are imminent; if this were true, then there would be no cause but the First Cause, and Pantheism would be true.

Beside the strict sense of the word "cause," it has various derivative and secondary meanings or uses.

(1.) Cause is sometimes used to denote anything which is essential to the effect. Thus Aristotle made the famous and important distinction between Material, Formal, Efficient, and Final causes. Material cause is the undefined general material out of which any specific effect is produced. This corresponds to genus. The Formal cause is that which out of this general material produces a specific effect. This corresponds to differentia. Thus the material cause of man is animality, the formal cause is rationality The Efficient cause is that which has and exerts the power needed to produce the effect; it is the true and proper cause. The Final cause is the end for which anything is produced, for which the efficient cause operates. In the case of a statue the material cause

is the marble from which it is made; the formal cause is the ideal in the sculptor's mind; the efficient cause is the muscular energy of the sculptor's arm; the final cause may be to beautify a temple.

(2.) There are Positive, Privative, and Negative causes. The Positive cause produces its effect by its actual presence and agency, as the sun is the cause of day. The Privative cause produces its effect by its absence, as the sun produces night by withdrawing. Negative cause is essentially the same as the Privative.

The Instrumental cause is that which the real cause employs as an instrument to effect the result. The Occasional cause is the occasion of calling the real cause into action; *e. g.*, the suggestion of a friend is the occasional cause of our doing so and so. Some have held that all created causes are but the occasions of calling into action the first cause or Deity. This theory was started by Des Cartes to explain the way in which mind and matter can act upon each other. Meritorious cause is that which deserves a certain effect—whether good or evil; *e. g.*, sin is the meritorious cause of punishment. *Causa sine qua non* includes everything on which the effect depends.

Neglect to distinguish sharply between these various senses of the word Cause has led to great confusion and error.

THE END.