AN HISTORICAL AND CRITICAL STUDY OF THE
KANTIAN ANTINOMIES.

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During the time that I have been giving attention to Theology, Philosophy, and Psychology, I have naturally run across references to and quotations from Kant. These introductions have been so frequent that an impression was created which finally led me to make an examination of several leading themes in the above subjects with the result that almost uniformly mention was made more often of this great German philosopher than of any other. This, what is very rarely seen, was to join with other fellow-students for one quarter in the study of Kant’s greatest work, “The Critique of Pure Reason,” a keen desire was produced to go into this matter more exhaustively than is ordinarily possible in a twelve-weeks course. Coupled with this there was a sense of dissatisfaction which my study had yielded. In a paper, therefore, is the result of an attempt to satisfy that inner craving. As one claims to have got to the bottom of Kantian philosophy, but every fresh attempt in the study of his system yields the feeling of an approach to completeness in an understanding of Kant.

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Introduction.

During the time that I have been giving attention to Theology, Philosophy, and Psychology I have constantly run across references to and quotations from Kant. These introductions have been so frequent that an impression was created which finally led me to make an examination of several leading volumes in the above subjects with the result that almost uniformly mention was made more often of this great German philosopher than of any other. Then, when it was privilege some months ago to join with other fellow-students for one quarter in the study of Kant's greatest work, "The Critique of Pure Reason," a keen desire was produced to go into this matter more exhaustively than is ordinarily possible in a twelve-weeks course. Coupled with this there was a sense of dissatisfaction which my study had yielded. This paper, therefore, is the result of an attempt to satisfy that inner craving. No one claims to have got to the bottom of Kantian philosophy, but every fresh attempt in the study of his system yields the feeling of an approach to completeness in an understanding of Kant.
Our task, therefore, is to make an historical study of Kant's philosophy in an attempt to discover the rise of his antinomies and to give a criticism of each. In undertaking the first phase of the work it seemed important at the outset to give attention to Kant's predecessors with special reference to that in their systems which, for Kant, yielded his antinomies. When the discussion of the antinomies is undertaken, we present them with their proofs in the Kantian form and follow each respectively with criticism. As a result of habitually seeing certain modes together, the thought that some takes up in great earnestness. His primary question is, How do we know that two things stand in the relation of cause and effect? We do not know it a priori. For, since the effect is different from the cause, and knowledge a priori deals only with that which is identical, the effect can not be located in the cause; nor is it certain that we do know it from experience since experience merely shows us the succession of two facts in time. The conclusions, therefore, which we draw from experience are the result of habit and for that reason can not be depended upon because we are in the habit of seeing

(1) Watson, *The Philosophy of Kant Explained*. pp 27, 28
CHAPTER I.

Two things associated together we conclude that the one in the cause and the other is the effect. For Kant's Predecessors, or What in Their Systems Gave Rise in His Philosophy to the Antinomies.

In the discussion of Kant's predecessors we begin with the Scottish philosopher because Kant himself says that it was Hume's scepticism which aroused him from his dogmatic slumber. (1) Locke's theory of causality, which in brief was that our conception of substance is attained as a result of habitually seeing certain modes together, was the thought that Hume takes up in great earnestness. His primary question is, How do we know that two things stand in the relation of cause and effect? We do not know it a priori, for, since the effect is different from the cause, and knowledge a priori deals only with that which is identical, the effect can not be detected in the cause; and it is certain that we do not know it thru experience since experience merely shows us the succession of two facts in time. The conclusions, therefore, which we draw from experience are the result of habit and for that reason can not be depended upon. Because we are in the habit of seeing

(1) Watson, The Philosophy of Kant Explained. pp 27, 28
two things associated together we conclude that one is the cause and the other is the effect. For instance, a farmer might go out to his corn crib and find the door unlocked and standing open, and seeing one of his horses near by, he immediately concludes that the horse is the cause of the door's standing open. If this should happen several mornings in succession he would immediately conclude upon seeing the horse near the granary that he would find the crib door open. Hume says that this is essentially what we are constantly doing in our explanation of phenomena about us. Since we see a relation in the time of events we at once conclude that the former is the cause of the latter; but he says, that a relation in time is not necessarily a causal connection. Hence, his conclusion is that things may be "conjoined but not connected," that causality is a customary, tho not a necessary also connection. (1) Concerning Hume's theory of knowledge, he accepted the position of his predecessors in that he held to the idea of determining the entire basis of knowledge and reader "two-world" theory of Descartes, in which mind and matter were represented as being in two distinct and opposed spheres. Such a disparity existed between them that there could be no direct contact. Because of this it is little wonder that the

(1) Selbie-Bigge, Hume's Treatise of Human Nature, 2nd ed. p 91
was no common method by which they might be brought together. No effort, therefore, upon the part of man will yield a means by which passage may be made from the one to the other. With such a dualistic conception, his inquiry concerned the way by which knowledge can get into the mind. Only two alternatives presented themselves: either the doctrine of innate ideas must be accepted or knowledge must come thru the medium of the senses. Of the Leibnitzian and the Lockian theories, Hume accepts the latter and makes all knowledge, in the last analysis, referable to sensation. Any idea which can not be traced to a sensation he holds to be wholly without value. This gives free play to the importance of individual experience and almost nullifies the idea of individual or social heritage, since it does not take into account the ingrained influences of the race. Each life not only begins its own course, but also begins it anew and within the brief course of life must begin and complete its entire system of knowledge. This being the case with Hume, individual tastes almost wholly determine the entire basis of knowledge and render it a thing of caprice rather than a constructive synthesis which may, in part at least, be passed from one generation to another. Because of this it is little wonder that the logical development of such a system was a consequent
high-bred individualism, and at the same time a dualism of such marked propensities as to preclude its forever, for those maintaining it, any adequate appreciation of the friendly relation existing between its and extension. Furthermore, Hume's system, logically carried out, lands one in such hopeless depths of intellectual scepticism that little heart is left within the honest searcher after the truths of life and nature about him. His approach to the problem and his characteristic way of dealing with it lead one not only to question the capacity of the mind itself to deal with the problems of life but also to question the significance of experience itself. While he did not project his doubtful questions thus far that is what is logically involved in his handling of the entire question. Nothing certainly can be open to more serious objections than the taking of individual experience and positing it as the basis for general conclusions unless one makes the examination of individual experience so complete as practically to constitute the universal. What is being said here obtains in the field of Hume's theory of sensation, which is made the basis of knowledge. Unless, therefore, the entire manifold of sensation is gone over—combing, distinguishing, and comparing—and we do not mean in the individual only—a synthesis would not only be impossible but would at the same time
be wholly illogical. The major difficulty in connection with Hume's system, however, is not to be found in its conclusions, but rather in the point at which he began his attack upon the problem, that is, in his supposition that all knowledge arises from sensation. Given this assumption, the system is quite tenable. Under its influence, however, the universe disappears like magic. By this process all the constructive conceptions of self, cause, and God are but the results of the operations of a deluded imagination. Upon the basis of his criticism, therefore, the very conclusions which have been the choice beliefs of man from time immemorial are swept away and there is little left of certitude upon which that may be firmly grounded. Thus the problem resolves itself into the question of the relation between experience and knowledge, and we shall see that Kant's answer was not an effort to disprove Hume's scepticism but to analyze anew the various elements which enter into that.

In addition to what has already been said concerning the philosophy of John Locke, it should be noted that he considered the mind as almost wholly passive in the knowing process. True, Locke thought of it as possessing something of a combining, distinguishing, and comparing power not to be fully accounted for on the basis of pure empiricism. At the same time it was impossible for Locke
to suppose that the subject evolved the content of its world from within. To explain how this is brought about, he takes the senses as the gateways thru which the outside world forces itself upon the intellect while the mind's major and almost only function is to receive that which comes to it. "Nihil est in intellectu quod non fuerit in sensu." (1) This gives us a picture of the mind as an empty room which is made the receptacle for experiences which in some manner are these converted into knowledge. Knowledge, therefore, does not pass beyond the bounds of sense perception and, consequently, is limited to experience. Strange as it may seem, however, Locke maintained that the existence of God is a demonstrable and a necessary fact and that it has the certitude of a mathematical proposition. Both these ideas are taken up by Kant and assailed with such force that from his day forward a different viewpoint has been maintained by thinkers in regard to them.

(1) Seelye, Schwegler's History of Philosophy, pp 228, 229.
Wolffian Influence on Kant.

Wolffian philosophy flourished at the university of Konigsberg when Kant was a student there. His advisor, Shulte, was an ardent exponent of this teaching, but it remained for the brilliant young professor, Knutzen, to lead this young man into the mysteries of philosophical meditation. Professor Knutzen appears to have had exceptional teaching ability and to have presented the philosophy of the school, which otherwise was a series of dry theories, with an ardour and warmth which was quite captivating to young Kant. We are not surprised, therefore, that Kant left the university with a deep faith which had been committed unto him by his teachers.

It may hardly be fair to others of the Rationalistic School to give first consideration to Wolff as its representative, but in so doing we are reminded that it was this particular form of philosophy with which Kant first and most lastingly came into contact. Indeed, it was largely due to the voluminous writing of Wolff that the study of philosophy was popularized in Germany. He was nominally a follower of Leibnitz, but lacked the keen analytical mind of his master. His system, therefore, was little more than a series of logical formulae whereby...
mind and matter might be brought into harmonious relation. In this process he made reason nothing but the analyzing power which surveyed its own operations, and in this was the weakness of his system, for he soon came to see that reason must have something presented to itself to act upon. Whence, then, do sensations come from? They must come from some other than the perceiving self. The result was that Wolff must revert to experience every now and then to bolster up his theory. Consequently, it is not strange to find him vacillating between the two theories, that is, rationalism, pure and simple, on the one hand, and empiricism on the other. As soon as his critics noticed this weakness in his system they began to discredit reason as the source of knowledge and to reduce it to a merely formal activity. Thus Wolff accomplished the exact opposite of what he set out to achieve. He had entered upon his task with great confidence in the ability of reason to shed forth a world of light upon the darkness of life, but, lo, his way ended in the depths of intellectual bewilderment. He had intended to show that the world was an intelligible system and that there was harmony existing between its parts and elements but his philosophy led to the very opposite. The world lacked unity and harmony and was an unintelligible fact, something upon which reflection can throw no light. If unity is to be found in the universe, it will come
according to Wolff, as a result of faith and not by the activity of reason.

Wolff accepted the general theory of Leibnitz but did not carry it out consistently. He posited the Leibnitzian monads as isolated individuals, and, therefore, independent of outside influence. The statement that "every monad really excludes the whole universe" logically directs one to a world in which the best that can be said is that everything is conjoined. All bodies are in a perpetual flux, but each is naturally repellant to every other, and thus stands in an isolated relation; each exists in and for itself. It will be noted that Kant takes a definite stand when he comes to consider this doctrine and in his dealing with it advances in the working out of his own theory of the "thing-in-itself."

He rejected the atomistic doctrine of his teachers and at the same time he concluded that the very nature of the case involved certain relations, that is, things would not be in their existing relation if it were not for the common tendency to regard them as together under the term of space. It would be quite impossible to think of them at all unless they were first brought into certain relations with one another in space. Wolff omitted from his system the all-important doctrine of the author of the monad theory, namely, that of the pre-established harmony which formed the very crux of Leibnitz's whole philosophy. For him there was an inner spirit of power working within the monads to
maintain harmony in the universe and it was by this theory that Leibnitz constructed a world in which, altho' there would be multiplied millions of individual monads-selves - there would, at the same time, exist a beautiful complementary action of the one upon the other. His monads with souls, have perceptions more distinct and memory also; his organic bodies are divine machines or natural automata. Thus, according to Leibnitzian theory in pre-established harmony, everything - every monad - is so created in the beginning that it intuitively moves in perfect harmony with every other thing - every monad - in the universe. Allof this was so modified by Wolff that his system had nothing, no inner life or spirit, to bind it together. It is little wonder, therefore, that he was so hesitating when he came to speak of the relation of the body to the soul. He was not certain in his teaching whether or not harmony existed or could exist between these two entities. At this point of his philosophical doctrine his opponents vigorously attacked him.

Another point of weakness in the Wolffian system was in his conception of the individual and the universal monad, or the relation existing between them. He says that the universal, that is, God, is an individual monad the same as the rest. This monad is complete in itself and, therefore, excludes all other existence. This makes the
universal a matter of name, rather than of fact. For Wolff, the universal consisted in the extraordinary size of the monad, which we all agree, is no argument for universality. If this theory were true, it would be nothing more than a Goliath among the Philistines, or than the power of Pharoah's "ill-favored and lean-fleshed kine" which "did eat up the seven well-favored and fat kine." Thus, the universal ranks with individuals or else in reality, there are no individuals. Whichever horn of the dilemma one seizes, he lands inextricable in sands of difficulty. Wolff never solved the problem, but Kant took it up with determination and gave a satisfactory explanation and place in his system for both, altho for some time Kant indicated that the influence of Spinozistic pantheism was very alluring. At last he broke thru to his final position where he maintained with great confidence that without the two knowledge proper would be impossible. The conception of the individual and the universal must, accordingly, be a property of the mind itself. How he worked this out is shown in his first Critique.

Because of his important place in philosophy, as well as because of the fact that Leibnitz had a very marked influence upon Kant, it will be necessary to consider his theory of knowledge and some of the implications connected
therewith. Leibnitz was greatly influenced by the Cartesian philosophy; but he differed from Descartes both in method and in some of his principles. He was an opponent of the Lockian doctrine that the mind at birth is a *tabula rasa*, a blank tablet to be written on by experience. He rather maintained that the mind is likened to a block of marble, in which the veins prefigure the form of the image; that altho we are not born with ready-made knowledge in the sense of clear and distinct ideas, still there are "small, dark notions of the soul" which are not the mere passive products of sensations. "Perceptions" he says, "are the dark modifications within us, which never come to a clear consciousness." By the term "innate" he meant those innate tendencies and dispositions which unfold as soon as experience offers them an opportunity or occasion. Thus he argued that all knowledge lies implicit in the mind; experience does not create knowledge, but it is brought out and cleared up and made explicit by experience. Growth in knowledge consists in the process of clarification and definition of ideas. Nothing comes to soul from without. It is in a constant state of activity. The monad is described as having no windows thru which it can look out upon the rest of the universe, but as mirroring
the whole of the universe within itself. The two fundamental principles upon which Leibnitz laid great stress were the principle of contradiction and the principle of sufficient reason. "I use" he declares, "two principles of demonstration; one of them is the principle that whatever contains a contradiction is false; the other is the principle that for every truth which is not an identical contradiction, a reason can be given. In other words, the notion of the predicate is always explicitly or implicitly contained in the notion of the subject, and this is the case not less in contingent and necessary truth. The distinction between contingent and necessary truth very closely resembles the distinction between commensurable and incommensurable numbers. Just as we can find a common measure for commensurable numbers, so we can always demonstrate necessary truths, that is, we can always carry them back to identical propositions. On the other hand, just as the analysis of a ratio of incommensurables produce an infinite series, so contingent truths require an infinite analysis which God only can complete. Therefore, it is by Him alone that they are known certainly and a priori; for tho a reason can always be found for the state that succeeds in the state immediately before it, yet this reason requires another reason, and so on ad infinitum. And this process ad infinitum, takes in our knowledge the place of a sufficient reason, which can be found only outside the series in God, on whom all its parts, prior and posterior, depend, far more than they depend on each
other. For when a truth is incapable of final analysis, and can not be demonstrated from its own reasons, but derives its final reason and certitude from the divine mind alone, it is not necessary. Such are all those I call truths of fact, and this is the root of their contingency which I doubt anyone hitherto has explained." (1)

The validity of rational knowledge is thus guaranteed by the principle of contradiction, that of empirical knowledge by the principle of sufficient reason. In other words, he maintained that necessary truths are analytical, that contingent truths are synthetical. The latter must be verified from without and an adequate reason must be assigned for their validity. The basis for the authentication of the former lies in the fact that it is impossible to think their opposites. From this it will be noted that Kant found very helpful suggestion in working out his own synthesis in regard to the problem of knowledge and also in reference to the limitations of pure reason.

While it may hardly be proper to put Berkeley in the rationalistic school, for he is best classed among the idealists, yet a word here is necessary to give something at least of his influence on Kant. Berkeley stands as a

(1) Erdmann, The Philosophy of Leibnitz, p 83
perfector of a subjective idealism. He maintains that all
sensations are subjective. We do not have sensations of
external objects or even perceive them. There is no material
world external to the mind at all. We conclude that external
objects exist because our experience has taught us that
certain sensations of sight are always accompanied by
particular sensations of touch. He says that even tho
there must be a cause for our sensations, there is no proof
that this cause must be external matter. Fichte held that
the Ego might be the cause, but Berkeley stated that God
was the cause. For Berkeley, therefore there was no such
thing as an external world. Mind alone exists, and by
mind he meant thinking beings whose nature consists in
thinking and willing. Being for Berkeley consisted in
being perceived and, therefore, being could not be
except as it was perceived, that is, "esse est percipi." (1)
In Berkeley's eagerness to oppose the prevailing materialism
and scepticism of his time, he swung to the other extreme
to a complete denial of matter altogether. At the same
time, his subjective idealism furnished Kant with
wholesome thought material for the construction of his
system.

(1) A.C. Fraser, Selections From Berkeley, pp 94 - 97.
Kant's Relation to His Time and the Problems For Which He Sought Solution.

The foregoing statements as to the spirit of the time just prior to Kant's day and the various systems of thought in the atmosphere while Kant was a student at the University help us to understand the urgent necessity for someone who was fully conversant with the current tendencies in philosophy and also mentally equipped to sift the truths from intermixed error and, using all the past, erect upon the foundation stones, gathered here and there, a superstructure of beauty and strength. This does not mean that Kant was an eclectic and merely selected material from past and present systems therewith to erect the architectonic of his philosophy, but it does assert that he had a sufficiently analytical mind to collect the wheat from the dross and incorporate it into a system of his own making, whereby it would be more lastingly and more helpfully preserved for future usefulness. His philosophy forms a natural passage from the old to the new, from the medieval to the modern point of view. One cannot grasp the modern view point in philosophy without a careful study of Kant, and it is equally certain that one can not go from the medieval to the modern philosophy without going the Kantian way.

"Hegel speaks of certain great writers who are like knots
in the tree of human development, at once points of concentration for the various elements in the culture of the past and the starting points from which the various tendencies of the new time begin to diverge. In the history of thought there is no one to whom this saying can be applied with more confidence than to Kant. In the German phrase, he "marks an epoch," the end of one mode of thought and the beginning of another. His works form a kind of bridge by which we pass from the ruling conceptions of the eighteenth to those of the nineteenth century. The reason is this, he brings together all the elements of the thought of the eighteenth century in such a way that a new and higher thought springs from their union. To use the words of Green, "he read Hume with the eyes of Leibnitz and Leibnitz with the eyes of Hume," and therefore, "he was able to rid himself of the presuppositions of both, and to start a new method of philosophy." (1) In other words he effected such a synthesis of the different tendencies of his time as carried him beyond their one-sidedness, and, thereby, lifted philosophical discussion to a new level." (2)

To forecast, by way of general summary, the life accomplishment of Kant will help us to see that his entire

(2) Caird, Critical Philosophy of Kant, Vol. I, p. 42. of the "Dissertation of the Form and Principles of the Sensible and the Intelligible World" was an effort to reach
experience as portrayed in his works is a matter of evolution. In the first period of this development, Kant labored as an ardent, though it is evident not a fully satisfied, adherent of the philosophy of his student days, namely, Wolffianism. During this period his most noteworthy production was "A New Explanation of the First Principles of Metaphysical Knowledge" in 1755. Eight years later he published several essays which indicate that he was on the verge of a break with the Wolffian school and in which he gradually swung toward the empiricism of Locke, altho he never approached the problem from the Lockian angle, and of course, at no time stood on the premises and conclusions of Locke. It is doubtless true that his natural tendency to the pietism of his early school days and his intellectual bent toward the rationalism of his university years were struggling during this period for ascendancy, for it was at about this time that he proposed that truth be deduced from "inner experience" and "immediate consciousness" rather than from ideas. In 1769 the critical idea came though he made no mention of its coming save to Lambert, and to him he gave no details as to what it signified. There is indicated in his writings at this time, however, a decided tendency away from the empiricism of Locke back to the rationalism of Wolff. His publication in 1770 of the "Dissertation of the Form and Principles of the Sensible and the Intelligible World" was an effort to reach
a fundamental basis for the differentiation between the
two schools of philosophy. It took, however, eleven
years following this production for him to work out in
a more completed form the theory he had attempted to set
forth in the last mentioned essay. When he did present,
in 1781, the "Critique of Pure Reason," he was able to
elucidate only one side of the question. It required fur-
ther development in the fertile mind of the lonely Königs-
berg philosopher and the reactive influence of critical
public that in comment upon his first Critique to make
possible the presentation of the other side of the argu-
ment. This appears in his later Critiques and, taken to-
gether, they present the completely rounded philosop-
ical doctrine of Kant.

His general problem throughout the whole period
of his life course was essentially one, that of discover-
ing and marking the precise limits of rationalism and
empiricism - the great battling ground of philosophy for
generations prior to Kant's time - and of demonstrating
that they are complementary to each other, rather than con-
tradictory. He examined the extreme positions of both and then
attempted to build together in a single system those elements
of truth in seemingly opposed doctrines. The basis of recon-
ciliation upon which he proceeded was: "Ideas without per-
ception by the senses are empty, but mere sensations without
ideas are blind." (1)

(1) Watson, Selections from Kant, p 41.

(1) Watson, Selections From Kant, p 3.
There seems to have been no doubt in Kant's mind as to the relation of his criticism to the previous philosophy. He compared the change which he had made possible in philosophy with that wrought by Copernicus in astronomy. "Hitherto it has been assumed," says Kant, "that all our knowledge must regulate itself according to its objects; but all attempts to make anything out of them a priori, thru notions whereby our knowledge might be enlarged, has proved, under this presupposition, abortive. Let us, then, try for once whether we do not succeed better with the problems of metaphysics by assuming that objects must be adapted to the nature of our knowledge, a mode of viewing the subject which accords much better with the desired possibility of a knowledge of subjects a priori, which must decide something concerning them before they are given us. The circumstances are, in this case, precisely the same as with the first thoughts of Copernicus, who, finding that his attempt to explain the motions of the heavenly bodies did not succeed when he assumed the whole starry host to revolve around the spectator, tried whether he should not succeed better, if he left the spectator himself to move, and the stars on the contrary to rest." (1) Here we have most clearly and decidedly expressed Kant's principle of subjective idealism as well as his estimate of the influence of his own philosophy.

(1) Watson, Selections From Kant, p 3.
Kant's Philosophy and How it Yielded His Antinomies.

The answer to the question, how did Kant's philosophy yield his antinomies, can not be given in a few words and not apart from a consideration of the manner in which he attacked the main problems of his philosophy. It would carry us too far afield to deal exhaustively with his system as wrought out in the "Critique of Pure Reason" but it will be necessary, however, to deal with it sufficiently to show how the antinomies were a logical outgrowth and natural deduction of Kant's course of argument in reference to the capacity and the limitations of Pure Reason.

Kant began his inquiry by an effort to answer the question, "How are synthetic judgments a priori possible?" He set up against Hume that there is an a priori knowledge. His argument runs something like this. We have not gone far until we find that synthesis is constantly taking place in the ordinary experience of everyday life. The mind is not only aware of events in the order in which they occur, but there is also a process of unification and systematization constantly going on in the intellect. Nothing is found to stand in isolation. All occurrences stand in a relational situation and the significance of
the mind. In this it is noticed that the mind is in almost constant activity. Thus Kant was led to deny the Lockian conception of mental passivity in which the mind is a tabula rasa and to assert the synthetic power of the knowing mind. This is abundantly evidenced in a coordinating principle which binds all things together, yielding a harmonious whole out of what might otherwise be individual, disconnected parts. It is because of this that Kant maintains that the mind is characterized by a certain capacity for synthetic judging. That capacity must likewise be a priori, that is, it must precede and not be consequent upon experience. The a priori is that very element which makes experience possible.

If the question be asked as to the necessity of Kant's question, "how are synthetic judgments a priori possible," it will be remembered that Kant's main object was to prove against Hume that there is an a priori knowledge of objects. It is also maintained that his purpose was to show that Wolff and Leibnitz were wrong in limiting knowledge to phenomena. Whichever was the case, the problem is one with Kant. For him, all knowledge in its finality may be traced back to two sources, either it finds its origin in the a posteriori elements of human experience - and this includes all that we obtain from the senses-empiricism...
pure and simple, or, in the a priori syntheses, which
are universal and necessary. Of such a general nature are
these syntheses that they form an equipment for every
thinking being in conformity with every other intelligent
person. It may be easy enough to explain synthetic
judgments a posteriori but it is quite a different
matter, and very much more difficult, to explain them
a priori. It is, therefore, for the purpose of
elucidating such a question that Kant wrote his "Critique
of Pure Reason."

When he takes up the consideration of his main
question, "how are synthetic judgments possible," he
removes it from the general and puts it into a more
exact form and inquires, how is science possible?
He sees at once that there are different kinds of sciences
and, therefore, groups them under three general heads.
(1) Mathematical Science - "The subject matter of this
group may be designated the general condition of objects;
those conditions which attach peculiarly neither to this
nor to that thing, but under which everything equally
becomes known in experience. (2) Physical Science - This
has for its special field the relation of particular
objects to one another. Here we get away from mere
general conditions in obedience to which this or that group
of objects, come to take their place as effective
components of experience. (3) Metaphysical Science - This
occupies itself with the general order in which all objects are involved; that is, with the universe in its entirety and the conceptions essentially connected therewith." (1) Indeed, it is to be noted that synthetic a priori judgments obtain in all the above groups. The varied combinations of number are not formed by counting single units up or down to a desired end. When one says that eight times eight are sixty-four he does not stop to place eight separate things in eight rows and finally arrive at the proper result. Upon the announcement of eight times eight, a synthesis immediately takes place or has previously taken place which makes it possible to go at once to the product of those two numbers. What is true in regard to number is equally true in respect to the physical sciences. The uniformity of nature, the indestructibility of matter, the persistency of energy are evidences of this synthetic a priori process. The law of cause and effect is cited as a sample of the application of the principle of the synthetic a priori judgments. Because of the operation of the a priori in all three fields of investigation, Kant's original question is broken up into three similar queries: How is Mathematical Science possible? How is Physical Science possible? Is Metaphysical Science possible? The answer

(1) Wenley, Outline of Kant's Critique, p 33.
to these questions Kant takes up in three major sections of his Critique as follows: the first is worked out in his Transcendental Aesthetic; the second is answered in his Transcendental Analytic; the third is undertaken in the Transcendental Dialectic. A brief summary of each will be necessary.
The Transcendental Aesthetic.

At the very outset it will be well to get Kant's viewpoint on the words just referred to. By "Transcendental" Kant designates the various forms, categories, or ideas assumed to be constitutive or regulative elements of human experience; and altho manifested in experience they are not derived from experience. In experience one may attend to either the product or to the process. The things of that may be interesting, but for Kant the main issue was the modus operandi. Therefore, when Kant uses this term he has reference to this fundamental, constitutive side of experience. For this very reason it must not be confused with the word "transcendent" which is used in the sense of something above or beyond reason.

Aesthetic is not used by Kant with the modern connotation, but in its etymological significance as the "science of the a priori principles of the sense."

The Aesthetic undertakes to answer the question - What are the a priori principles of our knowledge thru the sense, the original forms of sensuous intuition.

In working out the answer Kant points out that there is an outer and an inner sense to be considered. "In external sense we are conscious of objects outside of ourselves -
and by "objects" he does not mean things in themselves but perceived objects, objects as they exist in our own consciousness. Because of this it would be out of harmony with Kant's view to suppose that "outside of ourselves" means beyond our mind or consciousness. What we posit as being "outside of ourselves" has reference to those objects which we perceive as being extended or in space, and therefore, the difference between the "external" and the "inner" sense is the differentiation between perceived objects extended or in space and those perceived objects which are unextended and only as being in time. Hence, space and time are the highest forms of the outer and the inner sense. When the question is asked, what are space and time, Kant refers to the various answers given by stating that there are four avenues of approach. First they may be regarded as "real things," that is, as existing apart from and independent of our perception. This is the natural view of the physical sciences and the position taken by Newton. Then, they may be taken as the "determinations of real things." (1) It was here that Kant was thinking of the doctrine of Locke - that extension and time are attributes of things or are the means by which distinction is made between things. Again, space and time may be the "relation of things." This was the view of the Leibnitz-Wolffian philosophy. In the last place, space and time are said to have no real existence apart from human

(1) Watson, Selections From Kant, pp 22 - 39.
perception, they being only "forms" according to which we arrange our various perceptive experiences. This is the view that Kant holds and his reasons for maintaining this position as well as his contention that they lie a priori in the human mind are based upon his understanding of the nature of these conceptions themselves and, also, upon his belief that without an a priori assumption of these conceptions certain sciences of demonstrated value would not be possible.

In his *Metaphysical Exposition* Kant shows that because space and time are universal and necessary, they are a priori, for he suggests that it would be impossible to perceive an object out of space, as it would be equally impossible to think of an object out of time. These very processes involve the necessity of both conditions being present in order to have thought at all. Space and time, however, are not conceptions but perceptions, because a conception subsumes under itself individuals that are not parts of itself; but, in space and time, all individual spaces and times are parts of and are contained within the universal Space and the universal Time. Kant argues at some length that the very possibility of determining these "forms" ad infinitum, that is, by continually adding new determinations, shows that they are perceptions rather than conceptions.
In his Transcendental Exposition, Kant directs his embers evidence to the point of showing that the science of pure mathematics can be conceived only upon the assumption of the a priori nature of Space and Time. One of the primary suppositions of mathematics is that its principles are universal and necessary. But he has already proved that universal and necessary principles can never be derived from experience; therefore, they must be a priori in their nature and are given a priori as pure intuitions. Having found, then, that a priori synthetic mathematical judgments are possible it has at the same time been, adds discovered that the range of such judgments is not applicable to all objects but only to those of human experience.

Transcendental Analytic

The purpose Kant had in mind was "to show that there are pure a priori conceptions and that these are pure a priori judgments based upon them, which determines the conditions under which all sensible experience is possible. Naturally, therefore, the first problem of Transcendental Analytic will be to discover the pure conceptions of understanding, to show that they are pure forms of thought and to exhibit them as necessary and universal conditions of certain a priori synthetic judgments." (1)

(1) Watson, Kant Explained, p 119
When, therefore, Kant fairly faced this problem he remembered that Aristotle had worked out a list of categories and he proceeded to inquire as to whether or not that list would help him out. Aristotle's list was as follows: substance, quality, quantity, relation, place, time, situation, condition, action and passion. But, it is to be noted upon the surface that some of these are derived from experience and would not suit Kant's purpose, and that others he had already made use of in the Aesthetic. However, they gave him a starting point and with the aid of formal logic he soon had sufficient to serve his need; he, therefore, adds only one list to those furnished by Aristotle, that of modality. Now logic shows that there are four kinds of judgments, that is, judgments of -

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<tr>
<td>Universal</td>
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<td>Particular</td>
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<td>Singular</td>
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From the above judgments are obtained the same number of fundamental conceptions or categories of the understanding, i.e.,

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<tr>
<td>Unity</td>
<td>Reality</td>
<td>Substance &amp; Inherence</td>
<td>Possibility &amp; Impossibility</td>
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<tr>
<td>Plurality</td>
<td>Negation</td>
<td>Causality &amp; Dependence</td>
<td>Being &amp; Not Being</td>
</tr>
<tr>
<td>Totality</td>
<td>Limitation</td>
<td>Community</td>
<td>Necessity &amp; Contingency</td>
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In each of the four sets it will be noted that the
third category under each heading is a synthesis from the
two preceding, viz., totality is simply plurality
regarded as unity - limitation is reality combined with
negation - community is causality in which two substances
mutually determine each other and necessity is only
existence given by simple possibility. Thus Kant does
not discover the categories but merely adopts them much as
he finds them and because he justifies their use.

In his Deduction of the Categories, Kant does
not undertake to prove their a priori character, but rather
assumes that, since they are the forms according to which
judgment is accustomed to operate, they must be a priori
self to form judgments. All thinking, Kant would have us
in their nature. However, he suggests that even if it were
understand, it judging. Then he assumed, according
possible to prove them a priori, that would not be sufficient,
since they are to have objective application, therefore,
conceptual truth, but it is enough, Kant, in his
Transcendental Deduction is a piece of mechanism
devised with the thought of counteracting this obstacle.
Taking up this matter he proceeds to show that unless
all objects are related to one self there can be no
knowledge. There must be some permanent ego which remains
unchanged in all the various determinations of experience.
In order that sensation may be apprehended and organized
into a body of knowledge. To use Kant's own language,
"objects can not be characterized as such except by the
synthesis of their manifold in relation to an identical self."
In other words, a line could have no meaning unless there were one identical self perceiving it as it was being made. By this means the succession of points which go to make up a line is perceived by the identical self which organizes the whole into a unity.

A synthetic self is, therefore, necessary. From this he proceeds to elucidate the view that the categories are the forms of unifying principles employed by this permanent ego in arriving at a synthesis. The very make-up or qualifying characteristic of this ego is that it is constantly forming syntheses from the manifold of life's experience. If it is asked how this is brought about, we are already prepared with the answer that it is in the capacity of the self to form judgments. All thinking, Kant would have us understand, is judging. When he assumed, according to the traditions of formal logic, that the categories exhausted the possibilities through which the faculty of judgment acts, he certainly erred. He stated a very fundamental truth, but did not go far enough, for, in his search for form, he temporarily lost sight of matter, which furnishes the underlying ground of unity contained in every act of judgment. It is true, however, that he had made advance and his suggestion was more far-reaching than he had anticipated. That he had got at the categories and we proved their external application cannot be doubted. Among the classifying concepts there is a permanent ego which has the capacity of observing certain relations between what is
It was necessary, therefore, to prove that the objects concerning which the categories properly function are the objects from which we secure knowledge by the means of sensation.

We are aware of the fact that in the knowing process the mind is active, that its activity is synthetic in nature, and that it operates along the line of the categories, but we do not know that objects in each case are identical. If the objects created by the categories could possibly be other than those of sense, we would be in a constant state of contradiction and the certainty of knowledge would ever be in doubt. In working out his theory, Kant shows in the first instance that, unless the categories can be applied to the things of sense, they have no intrinsic value. In view of the fact that there are constantly being introduced through perception sensations from the without, so to speak, something must function to bring about a synthesis of this extraneous mass. This is accomplished by means of the categories. But it is to be further noted that the categories are applicable to sensation as apprehended under the a priori forms of space and time. When a synthesis is formed of things in space, we assert that they exist together; when a synthesis is formed of things in time we state that there is a sequential relation. That is, among the changing panorama there is a permanent ego which has the capacity of observing certain relations between what is
passed before it, and a synthesis of the whole is formed. If it be asked how this is done, Kant would readily answer by stating that this is the function of the judgment acting in conformity with the categories. While, therefore, the categories are essentially *a priori* in their nature they deal, at the same time, with the *a posteriori* matter of sense.

The problem with which Kant was face to face in the schematization of the categories was that of the separation of the forms of the mind's behaviour in the judging process from the things of sensuous perception. He had just proved that the categories as the forms of understanding must deal with the matters of sense; he had, at the same time, indicated that they *a priori* in their nature while it is evident that the things of sense are *a posteriori* in their make-up. He, therefore, addressed himself to the task of securing commerce between the two. Apart, they are of no practical value; there must be some common mean between the two extremes. "Perceptions without conceptions are blind; conceptions without perceptions are empty." (1) He proceeds then to discover the means or faculty

(1) Watson, Selections From Kant, p 41.
by which passage is made from one to the other, and he concluded finally that it must be the imagination. A word about what he meant by schematization will help us to see his point. Take for instance, the idea of chair as indicating a class of furniture; as one holds this word "before the mind" he thinks of some certain chair, thus in the employment of the above actuality, the abstraction of an object "chair" in the abstract the imagination immediately furnishes us the image of a concrete chair - a chair furnished out of the manifold of our experience. Thus, the general term and the individual object occur simultaneously: to maintain the one suggests the other. Therefore, "the schema of a conception is the idea of a universal process of imagination by which a conception is presented in an image under the form of time." (2)

When the categories are schematized, the result is as follows: (1) Quantity has for its schema the continual addition of units or series in time which yield number. Thus I may begin with unity and, in the process of addition, reach all numbers, and, conversely, in the process of subtraction, plurality and totality are arrived at, and the last term is the product of the first and second. (2) Quality has for its schema the content of time. Thus we have in filled time the reality, empty time negation and in partly filled and partly empty time we have limitation. (3) Reality has for its schema the order in time. Thus permanency of the real in time yields substance; regular succession in time

(2) Watson, Kant Explained, p 172
yields causality; coexistence in time affords community.

(4) From the manner in which an object belongs to time the categories of modality take their schema from the whole of time. Conformity to the conditions of time generally yield possibility; the existence of an object in a certain prescribed time affords actuality; the existence of an object for all time yields necessity.

Now in the use of all these conceptions and principles we must constantly bear in mind that we are not permitted to make use of them beyond the limits of experience and never can they be employed in reference to things in themselves. Hence, when we try to apply them beyond the sphere of human experience we are merely searching for a mirage by looking thru a telescope. Our concepts, therefore, can not yield us a knowledge of noumena and our knowledge must remain limited to phenomena. The observance of this in the study of metaphysics will save much trouble and error. Because these conceptions and principles have been used as decoys to lead beyond the realm of experience, Kant undertakes in the next place to show not only how absurd it is, he also points out the pitfalls into which people fall when these conceptions and principles are thus used; he deals with this in his Transcendental Dialectic.
Kant's aim in this section of his scheme is to expose the illusion which arises from assuming that the principles of the understanding are adequate to determine the unconditioned ultimately arrives; or with every regress conditioned; in other words, to show that metaphysical science does not and can not exist. Understanding he has shown to be that power of the intellect which reduces all phenomena to unity.

It is constantly subsuming under the categories the manifold of daily life and ultimately arriving at a general unity or synthesis of the whole. Because of the very nature of this process in that there is never the consciousness of absolute completeness and because of the demands of reason for such a completeness, it seeks to obtain unity independently of the sensible in all its makeup. For, as the understanding connects events in their experience by relating them as condition and conditioned, reason seeks for a condition which is not further conditioned. Pure reason can therefore, be satisfied with nothing other than the unconditioned. By virtue of this very element it is reason which brings to light the limitations of understanding. The general assumption is that when the conditioned is ascertained there is at once opened to the intellect a means of passage back to the unconditioned thru the various Kant conditions, but, when one attempts this process, it is found that it implies either that it must be finite, that is.
regress leads only so far, or, that it is infinite, namely, added ad infinitum. Reason may urge one on from a given phenomenon to something more far-reaching. Indeed, reason may lead to the idea of a first cause under which everything must be subsumed, but it can not by the very nature of its operation ultimately arrive; for with every regress there is a feeling of non constat.

In the elucidation of his theory, Kant states that, as there are the three forms of syllogism by which judgments are made, namely, categorical, hypothetical and disjunctive, and, as the understanding has its forms in the categories under each head of which there are three terms, the last of each being uniformly the product of the other two, so in reason we find three ideas as follows: the idea of thinking subject, the idea of the entire universe, and the idea of God. The value of these ideas, though transcendent in their nature, lies in two elements. They keep before the mind an ideal of knowledge completed and this in turn serves as a guide to the understanding in the extension of experience. They also show that the other objects of experience can not be with things in themselves and, therefore, we are not forbidden to suppose that there may be entities which do not submit to the limits of experience. It would seem, by way of looking ahead to his theory of practical reason, that Kant may here have had in mind his ultimate proof for the existence of God, as founded in the demands of the moral consciousness.
It has already been noted that in the analytic, all knowledge must ultimately be referred to the permanent thinking subject, which remains the same throughout all the flux incident to experience. This Kant calls the transcendental ego. The question arises at this juncture, how do we obtain knowledge of this thinking being as an object of thought? It is here that Kant develops his theory of the transcendental and the phenomenal self. He says that this involves an insoluble difficulty, for it is as if this thinking self had the power to set its real self off to one side and inspect it much as we do phenomena. He proves successfully that this "I" that is thus supposedly set off for inspection is wholly empty of all content, for he shows that it can be known only from the thoughts by which it determines objects. Inasmuch as the categories are limited in their application to the phenomenal, they are of no value when an attempt is made to use them in reference to that which is transcendental, whether it be in regard to the "Ich denke" or to God. The main fallacy, therefore, according to Kant is the positing of the subject and the object in the one thinking self. In this effort of the reason to solve the problem it finds itself unable to surmount the difficulty because reason is an elemental function of the one united self and cannot, by the very nature of the case, be a part of both subject and object. Hence there occur paralogisms of pure reason, in which there is a violation of a rule in formal space. It is also evident from experiences that the determinations of phenomena are never complete. There is
logic known as the fallacy of the middle term, for, unless the middle term is used in the same sense in the major and minor premises, no valid judgment can be given. Knowledge of object, if possible when applied to the self, is nothing for the subject when the self is posited as being both the subject and the object. Therefore, pure reason can not avoid committing paralogisms and is forever held in ignorance or is bounded by those limitations which make it impossible for reason to surmount the difficulty and render a satisfactory explanation. At a later time, however, Kant works this out in a satisfactory manner from the standpoint of morality and, therefore, the gap created in his system by rational psychology is filled in by practical reason operating upon the ethical basis. We have next to consider the antinomies of Rational Cosmology.

Rational Cosmology

While in rational psychology illusions took the form of paralogisms, we are to note now that the illusions assume a wholly different aspect and yet the general result is very much the same. Here we have to deal with the idea of the world as a complete totality of phenomena, namely, of objects in one time and space. We have already learned that in this world no single object is known by itself but is always apprehended in a status relational to other phenomena. All this, too, takes place in a certain time and a certain space. It is also evident from experiences that the determinations of phenomena are never complete. There is
a regress ad infinitum. Reason is not satisfied with a partial regress; it wants to ascertain the first determination, that behind or beyond which nothing can be posited. Reason seeks the unconditioned. In the natural outreachingings to satisfy reason's demands, a conflict with understanding is encountered and the antinomies arise. When the mind has before it two contradictory alternatives, by the law of the excluded middle, if it accepts the one, the other must be rejected, and the demand of reason is such that one seems forced to accept the one or the other of the alternatives. The peculiarity of these antinomies, however, is that each of the opposites can be proved with equal force, and thus bewilderment and scepticism take the place of certainty and confidence. Thus reason pushed to its furthest limits in the field of metaphysics is self-contradictory and unreliable and it becomes the most formidable ally of agnosticism and scepticism. The basis for this conclusion rests in the fact that the questions of reason, if answered at all, must be answered by the understanding, but since reason and understanding can not use the same categories there is no comity between them and they assume a contradictory relation to each other. By the use of its categories the understanding can not form a synthesis of the manifold which meets the demands of reason. "There is a hopeless see-saw between the two faculties; for if we adopt such a conception of the unconditioned as alone is adequate to the idea
of reason, we find it is too great for the synthesis of the understanding; and, if we adopt such a conception of it as can be definitely apprehended by understanding, we find that it is too small for reason. The understanding can not determine an object absolutely but only by relation to another object; hence, it is impossible for it to rest in the conception of an absolute beginning. The consequence, therefore, is that, in all metaphysical conflicts, the victory remains with the attacking party. Reason fluctuates between two alternatives so related, that the negation of the one seems necessarily to involve the assertion of the other, while yet either, taken by itself, involves an absurdity. The strength of scepticism has always lain in the exhibition of this apparent self-contradiction of reason, according to which everything, which can be asserted, can, with equal reason, be denied; its weakness has lain in its incapacity for explaining the meaning of this self-contradiction. Yet if it be not explained, scepticism destroys itself; for, like every other radical system or doctrine, scepticism presupposes the general competence of that intelligence whose deliverances in certain specific instances it refutes. If reason is utterly incompetent, it could not determine even its own incompetence. Criticism, on the other hand, while it shows the origin and necessity of the problems of metaphysics,
same time, limit it; or, in other words, to prove the subjective at the same time that it denies the objective validity of ideas of reason." (1)

"The reason why antinomies thus arise in Rational Cosmology is this: it is here supposed that the reality of the phenomenal world which we perceive around us can be made 'reality' in the sense that the world is an abiding whole - which, of course, we can never perceive. In other words, 'reality' in its phenomenal meaning and in its transcendental import are presumed to be capable of application to the universe in exactly the same way. The demand is that the transcendental reality should appear in our experience as if it were phenomenal. Out of this one unreasonable requirement the antinomies arise." (2)

The antinomies are, therefore, a very logical product of the Kantian philosophy and are evolved out of his theory concerning the ability of pure reason. They are the results of his architectonic scheme. Up to the point where he began to make use of reason in the metaphysical field, the student is quite ready to declare that Kant has practically lifted reason to the point of deification. He had almost, if not wholly, clothed reason with all power. She has at her command a completed set of categories by means of which

(1) Caird, The Critical Philosophy of Kant, Vol.II pp40,41
(2) Wenley, Outline of Kant's Critique, p 73
supplemented by her able ally, understanding, reason was equipped to enter upon her conquest of the mysteries of daily life. No sooner, however, had she set forth upon her mission than she met with metaphysical questions so perplexing and mysterious that they were impossible of satisfactory solution. What tended to satisfy the demands of reason were without justification from the standpoint of understanding and vice versa.

Then, too, Kant's position in reference to the noumenal and phenomenal world was a constant source of trouble to him. He was in a constant see-saw between the two. Indeed, his use of terms in referring to them are quite confusing, because it is not always clear which one he had in mind.

Thus his antinomies arose out of his theory of psychology coupled with his two-world philosophy. (2)

Both the thesis and the antithesis are not mere

The thesis and the antithesis are not mere

Thus his antinomies arose out of his theory of psychology coupled with his two-world philosophy. (2)

(2) M. Weir, Principles of Philosophy, p. 317

The antithesis are not mere

(2) M. Weir, Principles of Philosophy, p. 317
The Antinomies Examined and Criticized

Introductory Comment

The methods of procedure in the proofs of all the antinomies is practically the same. The principle adopted in the major premise is, that, when the conditioned is given, the unconditioned is likewise given or implied. Attention is fixed in the minor premise upon some aspect of the series of sensible phenomena which is, by common admission, only a series of conditioned conditions. The conclusion then defines that form of the unconditioned which, it is maintained, is given or implied in the particular aspect of the series under discussion. (1)

The antinomies of Kant are not antinomies at all; their contradictions are put there by Kant himself. They are the products of his own tendency toward the formal. (2)

Both the thesis and the antithesis rest upon an illusion. In the major premise the conditioned is referred to in the sense of pure conception; in the minor premise, it is taken as an object of sense. Logically, therefore, we have a fallacy of an ambiguous term and consequently no valid conclusion can be deduced. (3)

(1) Morris, Pure Reason, p 237
(2) Ladd, Philosophy of Knowledge, pp 399, 400
(3) Watson, Kant Explained, p 262
If Kant had stated definitely his connotation of the term "world," he would have rendered students valuable aid to a proper understanding of his viewpoint. Sometimes the term is used by him in designation of a sensible world, at other times, he employs it in reference to a supersensible world. To be entirely clear as to which one he is thinking about is, therefore, frequently difficult. Then, too, when it is quite certain that he is thinking of a sensible world he does not always carry forward this idea into his reasoning and consequently his conclusions are not uniformly reliable. (1)

(1) Hyslop, Problems of Philosophy, pp 517, 518.

To restate the second point, again assume the opposite, namely, that the world has no limits in space. Then the world must be an infinite whole of co-existent things. And extensive magnitude can be conceived only by the intuitive faculty of our sensibilities, and not by the intellect. The magnitude that we call it must, in another sense of time, or, in other words, in respect to series of events must have passed away and come to an end, but this is impossible, as we have already seen. Hence the world can not be infinitely extended in space, and the opposite proposition must be true, viz., that it is closed within the limits of space.
First Antinomy
The world has no beginning in time, and no limits in space.

Thesis
The world has a beginning in time, and is enclosed within limits of space.

Proof
Assume the opposite, namely, that the world has no beginning in time. Then at a given time an infinite series of states of things must have passed away and come to an end. But an infinite series, from the nature of the case, can never come to an end. Hence, only a finite series can have passed away; which is the same as saying that the world has a beginning in time.

As to second point, again assume the opposite, namely, that the world has no limits in space. Then the world must be an infinite whole of co-existent things. But an extensive magnitude can be presented only by the successive synthesis of its parts, and in the case of an infinite magnitude this synthesis must occupy an infinite time, or, in other words, an infinite series of moments must have passed away and come to an end. But this is impossible, as we have already seen. Hence the world can not be infinitely extended in space, and the opposite proposition must be true, viz., that it is enclosed within the limits of space.
Antithesis

The world has no beginning in time, and no limits as regards both time and space. (1)

Proof: the problem is approached

As to the first point, assume that the world has a beginning in time. Then there must have been a time when the world was not, that is, an absolutely empty time. Hence, there can not have been an absolutely empty time, that is, the world had a beginning in time.

As to the second point, assume the opposite, namely, that the world is limited in space, that is, that empty space extends beyond the world. Then the world must be related to this empty space. But, such a relation of the world to empty space is impossible, because it would be the relation of the world to no object. We must, therefore, deny that there is an empty space beyond the world, that is, we must affirm that the world is infinite in its extension.

Criticism

A growing knowledge of the system of things in the universe seems to indicate more and more that the world as known is now in such a condition as to imply that its extent is limited and that it had a beginning. Neither Kant nor Hume, Modern Philosophy, p. 388, or Hillebrand, Kant and His English Critics, p. 509, would deny that there is an empty space beyond the world, that is, we must affirm that the world is infinite in its extension.

our ignorance of how that world began to be, nor our inability to conceive of past time in which the world was not are valid proofs against this conclusion. (1)

From whatever angle the problem is approached, difficulties are encountered. If we assert that the world had no beginning, it is too great for our conception. If we suppose it to have a beginning, it is too small for our thought. In a similar manner, if the world is infinite and unlimited in space, it is too great for any possible conception which begins with experience, and likewise a limited world is too small for our conception. (2)

On the basis of Kant's two-world theory, it is absurd even to argue the thesis and the antithesis with the thought of proving both. (3)

The last criticism is substantially what Hibben says in his Philosophy of Enlightenment. (4)

It is to be remembered that an empirical totality is never given. In the first place, life is only a brief span and the scope of human experience is always limited. At the same time, it is wholly impossible either to examine (1) Ladd, Philosophy of Knowledge, pp 412, 413.
(2) Bowen, Modern Philosophy, p 236
(3) Watson, Kant and His English Critics, p 300
(4) Hibben, The Philosophy of Enlightenment, p 245
or to sum up the entire series. The most that can be said is that we have experience in a limited field which never approaches the limits of totality and, therefore, when all additions to the finite are made, a totality or an infinity has not been arrived at. If this were not so, we could assume, on the one hand, that mental capacity is sufficient for complete exhaustion in the summation necessary for totality, and on the other, infinity would merely be the sum of all the finite. On this basis, the thesis is invalid, since it makes a false assumption that a series completed at a given moment might be infinite. Even if it were assumed that by this process an infinite were arrived at, then, instead of being infinite, it would be finite. Otherwise, it could not be arrived at.

Again, it must be evident that a world in time and space is a world wholly different from one which is neither in time nor limited by either space or time. One must be the phenomenal world and the other the noumenal. As such, the arguments for the proof of one can not be used as against the other. They are in two different spheres. If it were possible to prove that John Smith does not exist, that would be no proof whatsoever that I do not exist, for John Smith and I are two different entities altogether. We live in two different worlds; he in his and I in mine. What may be argued, therefore, for or
against the existence of a phenomenal world does not and can not by the very nature of the case argue for or against the existence of a noumenal world. Inasmuch then as the term "world" is not used in both thesis and antithesis with the same connotation it would be illogical and impossible to draw a valid conclusion by their use as the middle term in a major and minor premise.

Thesis
Assume the opposite, namely, that simples or simples of simples are not made up of simple parts.

Antithesis
The composition of the very nature of the case, is an accidental relation and can, therefore, be conceived to be present without the destruction of the substance. But it is not an accident, substance must either be simple substance or nothing at all. It has been assumed, however, that there is no single substance, but is there must be simples if all are the

Thesis
Things that are simple and cannot be composed of parts, nor does anything simpler exist anywhere in the world.

Antithesis
A composite is made up of simpler or simpler parts.
Second Antinomy

Assume the opposite, namely, that composite or continuous substances are not made up of simple parts.

Now composition, by the very nature of the case, is an accidental relation and can, therefore, be conceived to be absent without the destruction of the substance. But when all composition is thought away, substance must either be simple substance or nothing at all. It has been assumed, however, that there is no simple substance, and hence there must be nothing at all. Since the hypothesis is that substances do exist, we must deny the proposition that substances are not made up of simple parts, that is, we must affirm the thesis that every substance in the world is made up of simple parts.

Antithesis

No composite thing in the world is made up of simple parts, nor does anything simple exist anywhere in the world.
Proof

Assume the opposite, namely that a composite thing or substance is made up of simple parts. Now, it may be argued that no object in space can possibly be made up of simple parts because, as existing in space, an object must have the same characteristics as space itself. Space, however, is not made up of simple parts but consists of spaces. Since, therefore, we can not get rid of the composition in space, we must hold that every real thing which occupies space is composite.

It may be said, perhaps, that internal phenomena may be made up of simple parts because they are not in space but in time. This objection, however, may be easily answered because an object of perception, whether external or internal, can be presented to us which does not contain a manifold. Hence, there is nothing existing anywhere in the world which is absolutely simple.

Criticism

In the thesis, Kant grants, by definition of terms, what he should have established by argument. One is not clear as to just what he means by substance. Sometimes he employed it in the designation of an external objective reality; then, at other times, as if it were independent of space and time. The Leibnizian standpoint of metaphysics is adopted in the thesis, but for reasons which best
suited Kant's purpose, he completely discarded this in the antithesis. (1) Subsequently, the objects of

This case, we assume that the regress may go on indefinitely. Kant here shows a marked tendency toward the antithesis, as stated in the second antinomy as a contradiction. Individualism of his predecessors, particularly to the monadology of Leibnitz. (2)

Both the thesis and the antithesis are false since each asserts that the universe is given as a complete series in itself, a problem in existence whereas series of phenomena, while as a matter of fact, all that is of the first antinomy is to do with condition. Here is required by us is the idea of such a totality. The universe is infinite, divisible and the regress may be world does not exist in itself but only in the empirical universe could at as far as substance may exist, and regress of phenomenal conditions. By such a process, we never reach infinity and the extreme limits of the world. Consequently, the quantity of the world is neither finite nor infinite. (3)

In his argument on the second antinomy Kant shows the same tendency as is manifest in the first, that is, toward the confusion of the main terms. When he speaks of nothing in the world that is made up of simple parts and of everything in the world that is made up of simple parts, we understand that he has reference to things in themselves. But when we

(1) Smith, A Commentary of Kant's Critique of Pure Reason, pp 489, 490
(2) Caird, The Critical Philosophy of Kant, p 44.
(3) palckenberg, History of Modern Philosophy, p 376.
notice that the substances here mentioned are objects of experience, we assume that the regress may go on indefinitely and, therefore, substances are neither finite nor infinite. Hence, it is plain to see that there is no real contradictory statements involved, since he sets the noumena over against the phenomena.

This is essentially a problem in division, whereas that of the first antinomy had to do with addition. Here substance is infinitely divisible and the regress may be carried out just as far as patience and skill may lead, and yet one never comes upon the simple substance. That, however, does not mean that there is no antecedent state, which is the condition for all to be in effect, could have existed before and since this exists in this life change, it is as a priori or as a resultant for it, and so on ad infinitum. Now, if all things must conform to the law of nature, there is no reason to believe that substance is of the same nature, that no effect is without a cause, and no action without a reason. If there is any kind of substance in accordance to the law of nature, that is, that there must be an absolutely sustaining divine power.

**Conclusion**

There is no freedom, but all that comes to be in the world takes place entirely in accordance with the laws of nature.


**Third Antinomy**

**Thesis**

Assume the opposite, namely, that there is an absolutely 


Causality in conformity with the laws of nature.

is not the only causality from which all the phenomena

of the world can be derived. To explain those phenomena,

it is necessary to suppose that there is also a free

causality.

This presupposes a state in which the cause has not yet

acted. This situation has no causal connection

with the preceding state of that cause. Hence, transcendental

Assume the opposite, viz., that the only causality

is that in conformity with the laws of nature. Then,

whatever comes to be implies an antecedent state, which is

its condition; for otherwise the effect would have existed

always. And since this cause is itself a change, it

requires a priori change to account for it, and so on ad

infinitum. Now, if all changes must conform to the law

of nature, there is never a complete cause. Assuming the

truth of the law, therefore, that every effect must

have a cause, we are compelled to suppose that there is

another kind of cause besides that according to the laws

of nature, that is, that there must be an absolutely

spontaneous or free cause.

Upon the basis of Kant's argument, either the

Antithesis principle of causality contradicts itself, or some form

There is no freedom, but all that comes to be in the world

takes place entirely in accordance with the laws of nature.
Proof

Assume the opposite, namely, that there is an absolutely spontaneous or free cause. Then, not only must this cause originate the series of causes and effects, but it must determine itself to originate the series; that is, its act must take place without any antecedent determining it to act in accordance with fixed law. But an act which begins presupposes a state in which the cause has not yet begun to act. This state can have no causal connection with the preceding state of that cause. Hence, transcendental freedom contradicts the law of causality which is essential to the unity of experience; it is a mere idea, which can not be verified, and must, therefore, be denied. That is, there is no absolutely spontaneous cause, but everything takes place entirely in accordance with the laws of nature.

Criticism

When Kant asserts, as he does, the freedom of the will, he makes the third antinomy a palpable absurdity. Then, again he is still dealing with the phenomenal and the noumenal in the realm of causal relations. As such no antinomy can exist between them. (1)

Upon the basis of Kant's argument, either the principle of causality contradicts itself, or some form

(1) Hyslop, Problems of Philosophy, p 520.
of free-originating causality must be postulated. Kant's argument can not be accepted as valid. Each natural cause is sufficient to account for its effect, that is, sufficient at each stage. The fact that one can not go back to infinity and complete the series is not conclusive evidence that at each stage there is not a sufficient cause. (1)

Of the doctrine of freedom as taught by Kant, Höf
ing says: "It is not a doctrine of freedom but of fatalism." (2)

Coleridge says of the third antinomy, "A chain without a staple from which all the links derive their stability or a series of causes without a First, has not inaptly been allegorized as a string of blind men, each holding the skirt of the man before him, reaching far out of sight, but all moving, without the least deviation, in a straight line. It would be naturally taken for granted that there was a seeing guide at the head of the file; but what if it were answered, 'No sir;' and men are without number, infinite blindness supplies the place of sight."

Stated from another standpoint, this might be put as follows. Suppose I want to move an object which is not within my reach, and I therefore, employ a stick with which to push it; it is still I and not the stick which is the cause for the

(1) Smith, A Commentary of Kant's Critique of Pure

Reason, pp 493, 494.

(2) Höf
ding, History of Philosophy, Vol. II, pp 64, 65
moving of the object. This would be true, too, no matter if I had to put one stick against the end of another and so on ad infinitum. The sticks are simply means or implements so long as I remain the sole cause of the motion.

In the third antinomy Kant maintains in his proof of the thesis that assuming each effect has its cause, then each cause is caused and so on ad infinitum so that at no given point in the regress is there, in reality a cause which alone produced the effect, not even there-by making allowance for a sufficient cause. Of course, from the angle of pure reason this is very unsatisfying, for what he said in the beginning as to experience being unable to satisfy reason is shown here to a nicety. Nevertheless, Kant does not really establish his antinomy in the proof of thesis and antithesis. In the proof of the latter he again pits the phenomenal over against the noumenal when he concludes that "transcendental freedom contradicts the law of causality which is essential to the unity of experience." He says "transcendental freedom is only an idea, which can not be verified and must, therefore, be denied." If it is merely an idea, what is there to be denied, the idea? He says the idea exists, does his denial, therefore, do away with it, or anything else? He is simply begging the question or else clouding the issue.
by using terms which can not be used to contradict each other, and, if one were to accept and live by what he seems to have proved it would land one in the depths of fatalistic pessimism. Of course, Kant is not interested in disproving the existence of a first cause, but his burden is to show that when reason pushes out into the field of metaphysics it is treading in a mysterious way and soon comes to a point where unanswerable questions intuitively arise. Therefore, while his argument will not stand a searching test, he does make good his original contention.

In considering the first three antinomies, Höffding says: "There is a misfit between ideas and experience. Are the former too large for the latter or is the latter too small for the former? We can not blame experience, for it is precisely the possibility of experience which enables us to draw the line between category and idea. The blame must, therefore, rest with the ideas, or rather, perhaps, with the way in which we apply them. According to Kant, two different interests are represented in the theses and antitheses respectively. These theses, he thinks, express the speculative standpoint of dogmatism while, at the same time, they satisfy the practical interest, which demands a close of the sequences of thought - and this is also in accordance with the popular view: the
antitheses, on the other hand, appeal to empiricism and the strictly scientific interest, but involve consequences which impel the practical interest, and hence, which Kant does not regard the first two antinomies in the same light as the third. In the former, he thinks, both theses and antitheses are false: the world is neither finite or infinite, matter neither absolutely divisible nor absolutely indivisible. The problem ceases to exist when we distinguish between our mode of apprehension and the thing-in-itself. Our apprehension is a successive synthesis which proceeds from member to member; here continual progression is possible and a conclusion impossible, every limit may be overstepped by thought. We must not, however, transfer that which is valid for our conception, which is always setting for itself fresh tasks, to things-in-themselves. Or, in other words, the contingent implies a necessary being. The only significance of the idea of the world, as a totality, is that it leads our inquiry further and further, preventing us from coming to an over-hasty conclusion. It is not difficult to see that altho Kant believes himself to reject the antitheses, as well as the theses, he really justifies the antitheses; for he explains them as having arisen out of the strictly scientific interest. For the antitheses assert infinity in the sense of a process continued ad infinitum - not a given, completed infinity which is self-contradictory."

Fourth Antinomy

Thesis

There exists an absolutely necessary being, which belongs to the world either as a part or as a cause of it.

Proof

As the world of experience is a world of time, it contains a series of changes, each of which is necessarily dependent upon a condition prior to it. Now, the conditioned presupposes for its existence a complete series of conditions, ending in the completely unconditioned or absolutely necessary. Moreover, this necessary being must be within the world of sense; for the beginning of a series of changes must be determined by what is antecedent in time, or has existed in a time prior to the series. In other words, the contingent implies a necessary being within experience, that is, a necessary being contained in the world.

Antithesis

There nowhere exists a necessary being, either in the world, or outside the world as its cause.

Proof

Assume the opposite, namely, that the world itself is a necessary being, or that a necessary being exists.
in it. Then, there must be either an absolutely necessary being in the series of its changes, that is, an uncaused beginning, or the infinite series of changes must be as a whole absolutely necessary, while the parts are contingent. But the former supposition contradicts the phenomenal law of all determination in time, and the latter supposition contradicts itself, since the whole series can not be necessary if no single member of it necessarily exists. Hence, there nowhere exists an absolutely necessary being in the world.

Assume again, a necessary being beyond the world as a cause of it. Then, this being, as the highest member in the series of phenomena, initiates the series, and its causality must, therefore, fall into time. But, if its acts fall in to time, it comes within the sphere of our experience. Hence, there does not exist a necessary being outside the world.

Putting the results of these two arguments together, we reach the general conclusion, that neither in the world, nor as a cause outside of the world, does there exist an absolutely necessary being.

Criticism

In spite of Kant's dogmatic statements to the contrary, the viewpoint is the same in the thesis as it is in the
antithesis. In both cases the absolutely necessary being is seen as the first of the changes in the world of sense. To argue that when thus viewed it both is and is not demanded by the law of causality, is as impossible as to maintain that in one and the same meaning of our terms, the earth does or does not revolve on its own axis.

The proofs employed in the third and fourth antinomies are identical. This is due to the fact that Kant, under the stress of his architectonic, is endeavoring to make four where in reality only three antinomies are distinguishable. (1) We have to suppose not only a transcendental and a free causality but also a necessary being to which causality is attached. "We have to posit this in the third antinomy no less than in that of the fourth; for the transcendental causality which is supposed to explain the series of phenomena must be the causality of something. If the being that exercises it is not conceived as necessary and, therefore, unchanged, its existence will require a cause no less than the series of the phenomenal existence."

(1) Smith, A Commentary of Kant's Critique of Pure Reason, p 497.
(2) Sidgwick, The Philosophy of Kant, pp 175, 176.
In this antinomy Kant infers the existence of a necessary being because the regress of changes cannot contain all the conditions prior to an event, unless it posits the unconditioned as contained within those changes. On the other hand, a necessary being is denied to exist because the regress of merely conditioned events contains all the conditions that there are. Kant says in regard to this matter: "From the same ground on which, in the thesis, the existence of such a being before the event can be inferred, its nonexistence is inferred in the antithesis, and that with equal stringency." (1) This argument is one of the best supports of the belief is, indeed, a strange position to take in an argument and it simply amounts to saying that upon the same premises one may conclude that both B and not-B are true. If this were really the case, reason would constantly oscillate between the two and never be certain as to its grounds for confidence.

The same fatal error is made in the fourth that runs throughout the other antinomies, only here it is put in the form of a supposition, that is, given a complete series of conditions we are supposed to discover the unconditioned. We need not repeat the argument against this method of procedure. Only it is to be noted that in the proof of the thesis, Kant goes directly from the contingent in human experience to the unconditioned.

(1) Smith, A Commentary to Kant's Critique of Pure Reason, p 496.
within experience; which is hardly in keeping with his general argument. What he really does, therefore, is to arrive at an affirmative answer in regard to this antinomy.

To infer, as Kant does in the thesis, that there is a necessary being implies that there must first be some conception of such a being before anything can be inferred concerning it, and all will agree that conception of being does not equal the actuality of being; hence, his own argument is one of the best supports of the belief that there is a metaphysical science.
First, approaching the problem from the particular angle from which Kant approached it, we are not surprised that he came upon these antinomies in the development of his system. For it is to be remembered that in the knowing process there is a material and a formal factor; both necessary and yet neither operating with the terms of the other. The senses furnish the perceptions and these are made up into a synthesis by the use of the forms of conception and the only forms the mind can use in composing a synthesis are the twelve terms of the categories. Kant maintains that these can be employed only in reference to things of sense. Thus the province of knowledge is limited to the field in which the categories may be used. Reason, however, is not satisfied with having the field of knowledge thus circumscribed. It senses that there is a field lying beyond the gate-way of phenomenal things and it yearns to explore therein. Its only equipment, however, is the categories of understanding, and, since it can not work apart from this power of the intellect, reason may lead to the entrance of what seems a new way to knowledge. Indeed, it may venture into the enticing labyrinth of metaphysical theory, but with no aid and guide to lead the searcher out, it soon finds itself more inextricably entangled with every struggling effort.
In such a condition, reason can easily argue with confidence that to turn this way is just as likely to lead out as to turn that way. To take either horn of the dilemma is of no avail. In fact, reason soon begins to falter and even to question her ability to extricate herself and must her credit, inevitably succumb to the anaesthesia of blighting doubt.

Third, the antinomies are simply intolerable. (1) From the because they Kant constructs a labyrinth with the care and patience of an ancient nimrod setting a trap for wise and wary beast of prey. Every entrance is safely screened. The seeker after truth is enticed within. Once inside, he is turned round and round. Bewildering questions are hurled.
at him with the dexterity of a master. Each question is couched in high-sounding phrases that charm and mystify.
But when time comes to go, behold: there is no exit. All paths enter and none lead out. Kant was not interested in pointing out the exit. Indeed, it is doubted whether or not, at this stage of his life, he had discovered the road thru these difficulties.

(2) They are intolerable also from the viewpoint of the mental condition to which they logically and naturally tend. They can lead to no goal but that of gloom and despair.

(3) They are intolerable because one finds it so much more satisfactory to pass them by in utter neglect, or as dealing with an insoluble problem with which we need have nothing to do. When we keep within the proper range of our faculties, we may know all that concerns us to know, without off. There is constant interaction between them troubling ourselves with what lies beyond. Such a dilemma

(4) The antinomies are still further intolerable from the standpoint of the highest law of human thought which asserts that of two contradictory propositions, one must be true and the other false. But, here, Kant claims to have proved both contradictory propositions true. The fact is, space is either limited or else unlimited. Time is either finite or
infinite. The world had a beginning in time and in space, or, it did not have such a beginning. To assert that both the opposites are true is to invalidate the ability of reason herself.

And this is, for faith is to such a part

Fifth, because of Kant's expressed position that in order to make place for faith he must overthrow reason, and reason and faithlessness are determined by a mutual and, since he seems to have undertaken this with some degree of success in the antinomy section of his philosophy, it is well for us constantly to remind ourselves and others of the supplementary relation which has always existed between these two elemental functions in the knowing process. Faith and reason have always functioned together. There is nothing gained by assuming the attitude of having thrown either out.

Faith does not, and can not begin where reason leaves off. There is constant interaction between them. It is impossible to tell where the one ends and the other begins. Something like the vine which for years and years has wrapped itself about the oak; time has made the vine an integral part of the great tree. In some places it is entirely imbedded in the bark of the tree and to cut one out would be to destroy the life of the other. So faith and reason live on in a happy state of devoted companionship. Anyone, therefore, who tries to overthrow the one to make room for the other is undertaking not only a difficult and hazardous task but at the same time, one
which is wholly unnatural and, if pursued to the limit, can not but create a schism in the otherwise peaceful functioning of the mind, for faith is as much a part of mental operation as reason and vice versa. Why, therefore, attempt to separate these mental Siamese twins, whose very life and usefulness are determined by a mutual existence.
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