



and self-subsistent thing- as an object given a priori in itself. In the same way, it is quite natural that, as the systematic unity of nature cannot be established as a principle for the empirical employment of reason, unless it is based upon the idea of an ens realissimum, as the supreme cause, we should regard this idea as a real object, and this object, in its character of supreme condition, as absolutely necessary, and that in this way a regulative should be transformed into a constitutive principle. This interchange becomes evident when I regard this supreme being, which, relatively to the world, was absolutely (unconditionally) necessary, as a thing per se. In this case, I find it impossible to represent this necessity in or by any conception, and it exists merely in my own mind, as the formal condition of thought, but not as a material and hypostatic condition of existence.

SECTION VI. Of the Impossibility of a Physico-Theological Proof.

If, then, neither a pure conception nor the general experience of an existing being can provide a sufficient basis for the proof of the existence of the Deity, we can make the attempt by the only other mode- that of grounding our argument upon a determinate experience of the phenomena of the present world, their constitution and disposition, and discover whether we can thus attain to a sound conviction of the existence of a Supreme Being. This argument we shall term the physico-theological argument. If it is shown to be insufficient, speculative reason cannot present us with any satisfactory proof of the existence of a being corresponding to our transcendental idea.

It is evident from the remarks that have been made in the preceding sections, that an answer to this question will be far from being difficult or unconvincing. For how can any experience be adequate with an idea? The very essence of an idea consists in the fact that no experience can ever be discovered congruent or adequate with it. The transcendental idea of a necessary and all-sufficient being is so immeasurably great, so high above all that is empirical, which is always conditioned, that we hope in vain to find materials in the sphere of experience sufficiently ample for our conception, and in vain seek the unconditioned among things that are conditioned, while examples, nay, even guidance is denied us by the laws of empirical synthesis.

If the Supreme Being forms a link in the chain of empirical conditions, it must be a member of the empirical series, and, like the lower members which it precedes, have its origin in some higher member of the series. If, on the other hand, we disengage it from the chain, and cogitate it as an intelligible being, apart from the series of natural causes- how shall reason bridge the abyss that separates the latter from the former? All laws respecting the regress from effects to causes, all synthetical additions to our knowledge relate solely to possible experience and the objects of the sensuous world, and, apart from them, are without significance.

The world around us opens before our view so magnificent a spectacle of order, variety, beauty, and conformity to ends, that whether we pursue our observations into the infinity of space in the one direction, or into its illimitable divisions in the other, whether we regard the world in its greatest or its least manifestations- even after we have attained to the highest summit of knowledge which our weak minds can reach, we find that language in the presence of wonders so inconceivable has lost its force, and number its power to reckon, nay, even thought fails to conceive adequately, and our conception of the whole dissolves into an astonishment without power

of expression- all the more eloquent that it is dumb. Everywhere around us we observe a chain of causes and effects, of means and ends, of death and birth; and, as nothing has entered of itself into the condition in which we find it, we are constantly referred to some other thing, which itself suggests the same inquiry regarding its cause, and thus the universe must sink into the abyss of nothingness, unless we admit that, besides this infinite chain of contingencies, there exists something that is primal and self-subsistent- something which, as the cause of this phenomenal world, secures its continuance and preservation.

This highest cause- what magnitude shall we attribute to it? Of the content of the world we are ignorant; still less can we estimate its magnitude by comparison with the sphere of the possible. But this supreme cause being a necessity of the human mind, what is there to prevent us from attributing to it such a degree of perfection as to place it above the sphere of all that is possible? This we can easily do, although only by the aid of the faint outline of an abstract conception, by representing this being to ourselves as containing in itself, as an individual substance, all possible perfection- a conception which satisfies that requirement of reason which demands parsimony in principles, which is free from self-contradiction, which even contributes to the extension of the employment of reason in experience, by means of the guidance afforded by this idea to order and system, and which in no respect conflicts with any law of experience.

This argument always deserves to be mentioned with respect. It is the oldest, the clearest, and that most in conformity with the common reason of humanity. It animates the study of nature, as it itself derives its existence and draws ever new strength from that source. It introduces aims and ends into a sphere in which our observation could not of itself have discovered them, and extends our knowledge of nature, by directing our attention to a unity, the principle of which lies beyond nature. This knowledge of nature again reacts upon this idea- its cause; and thus our belief in a divine author of the universe rises to the power of an irresistible conviction.

For these reasons it would be utterly hopeless to attempt to rob this argument of the authority it has always enjoyed. The mind, unceasingly elevated by these considerations, which, although empirical, are so remarkably powerful, and continually adding to their force, will not suffer itself to be depressed by the doubts suggested by subtle speculation; it tears itself out of this state of uncertainty, the moment it casts a look upon the wondrous forms of nature and the majesty of the universe, and rises from height to height, from condition to condition, till it has elevated itself to the supreme and unconditioned author of all.

But although we have nothing to object to the reasonableness and utility of this procedure, but have rather to commend and encourage it, we cannot approve of the claims which this argument advances to demonstrative certainty and to a reception upon its own merits, apart from favour or support by other arguments. Nor can it injure the cause of morality to endeavour to lower the tone of the arrogant sophist, and to teach him that modesty and moderation which are the properties of a belief that brings calm and content into the mind, without prescribing to it an unworthy subjection. I maintain, then, that the physico-theological argument is insufficient of itself to prove the existence of a Supreme Being, that it must entrust this to the ontological argument- to which it serves merely as an introduction, and that, consequently, this argument contains the only possible ground of proof (possessed by speculative reason) for

the existence of this being.

The chief momenta in the physico-theological argument are as follow:

1. We observe in the world manifest signs of an arrangement full of purpose, executed with great wisdom, and argument in whole of a content indescribably various, and of an extent without limits. 2. This arrangement of means and ends is entirely foreign to the things existing in the world- it belongs to them merely as a contingent attribute; in other words, the nature of different things could not of itself, whatever means were employed, harmoniously tend towards certain purposes, were they not chosen and directed for these purposes by a rational and disposing principle, in accordance with certain fundamental ideas. 3. There exists, therefore, a sublime and wise cause (or several), which is not merely a blind, all-powerful nature, producing the beings and events which fill the world in unconscious fecundity, but a free and intelligent cause of the world. 4. The unity of this cause may be inferred from the unity of the reciprocal relation existing between the parts of the world, as portions of an artistic edifice- an inference which all our observation favours, and all principles of analogy support.

In the above argument, it is inferred from the analogy of certain products of nature with those of human art, when it compels Nature to bend herself to its purposes, as in the case of a house, a ship, or a watch, that the same kind of causality- namely, understanding and will- resides in nature. It is also declared that the internal possibility of this freely-acting nature (which is the source of all art, and perhaps also of human reason) is derivable from another and superhuman art- a conclusion which would perhaps be found incapable of standing the test of subtle transcendental criticism. But to neither of these opinions shall we at present object. We shall only remark that it must be confessed that, if we are to discuss the subject of cause at all, we cannot proceed more securely than with the guidance of the analogy subsisting between nature and such products of design- these being the only products whose causes and modes of organization are completely known to us. Reason would be unable to satisfy her own requirements, if she passed from a causality which she does know, to obscure and indemonstrable principles of explanation which she does not know.

According to the physico-theological argument, the connection and harmony existing in the world evidence the contingency of the form merely, but not of the matter, that is, of the substance of the world. To establish the truth of the latter opinion, it would be necessary to prove that all things would be in themselves incapable of this harmony and order, unless they were, even as regards their substance, the product of a supreme wisdom. But this would require very different grounds of proof from those presented by the analogy with human art. This proof can at most, therefore, demonstrate the existence of an architect of the world, whose efforts are limited by the capabilities of the material with which he works, but not of a creator of the world, to whom all things are subject. Thus this argument is utterly insufficient for the task before us- a demonstration of the existence of an all-sufficient being. If we wish to prove the contingency of matter, we must have recourse to a transcendental argument, which the physicotheological was constructed expressly to avoid.

We infer, from the order and design visible in the universe, as a disposition of a thoroughly contingent character, the existence of a cause proportionate thereto. The conception of this cause must contain certain determinate qualities, and it must therefore be regarded as the conception of a being which possesses all power, wisdom, and so on, in one word, all perfection- the conception, that is, of an

all-sufficient being. For the predicates of very great, astonishing, or immeasurable power and excellence, give us no determinate conception of the thing, nor do they inform us what the thing may be in itself. They merely indicate the relation existing between the magnitude of the object and the observer, who compares it with himself and with his own power of comprehension, and are mere expressions of praise and reverence, by which the object is either magnified, or the observing subject depreciated in relation to the object. Where we have to do with the magnitude (of the perfection) of a thing, we can discover no determinate conception, except that which comprehends all possible perfection or completeness, and it is only the total (omnitude) of reality which is completely determined in and through its conception alone.

Now it cannot be expected that any one will be bold enough to declare that he has a perfect insight into the relation which the magnitude of the world he contemplates bears (in its extent as well as in its content) to omnipotence, into that of the order and design in the world to the highest wisdom, and that of the unity of the world to the absolute unity of a Supreme Being. Physico-theology is therefore incapable of presenting a determinate conception of a supreme cause of the world, and is therefore insufficient as a principle of theology- a theology which is itself to be the basis of religion.

The attainment of absolute totality is completely impossible on the path of empiricism. And yet this is the path pursued in the physicotheological argument. What means shall we employ to bridge the abyss?

After elevating ourselves to admiration of the magnitude of the power, wisdom, and other attributes of the author of the world, and finding we can advance no further, we leave the argument on empirical grounds, and proceed to infer the contingency of the world from the order and conformity to aims that are observable in it. From this contingency we infer, by the help of transcendental conceptions alone, the existence of something absolutely necessary; and, still advancing, proceed from the conception of the absolute necessity of the first cause to the completely determined or determining conception thereof- the conception of an all-embracing reality. Thus the physico-theological, failing in its undertaking, recurs in its embarrassment to the cosmological argument; and, as this is merely the ontological argument in disguise, it executes its design solely by the aid of pure reason, although it at first professed to have no connection with this faculty and to base its entire procedure upon experience alone.

The physico-theologians have therefore no reason to regard with such contempt the transcendental mode of argument, and to look down upon it, with the conceit of clear-sighted observers of nature, as the brain-cobweb of obscure speculatists. For, if they reflect upon and examine their own arguments, they will find that, after following for some time the path of nature and experience, and discovering themselves no nearer their object, they suddenly leave this path and pass into the region of pure possibility, where they hope to reach upon the wings of ideas what had eluded all their empirical investigations. Gaining, as they think, a firm footing after this immense leap, they extend their determinate conception- into the possession of which they have come, they know not how- over the whole sphere of creation, and explain their ideal, which is entirely a product of pure reason, by illustrations drawn from experience- though in a degree miserably unworthy of the grandeur of the object, while they refuse to acknowledge that they have arrived at this cognition or hypothesis by a very different road from that of experience.

Thus the physico-theological is based upon the cosmological, and

this upon the ontological proof of the existence of a Supreme Being; and as besides these three there is no other path open to speculative reason, the ontological proof, on the ground of pure conceptions of reason, is the only possible one, if any proof of a proposition so far transcending the empirical exercise of the understanding is possible at all.

SECTION VII. Critique of all Theology based upon Speculative Principles of Reason.

If by the term theology I understand the cognition of a primal being, that cognition is based either upon reason alone (theologia rationalis) or upon revelation (theologia revelata). The former cogitates its object either by means of pure transcendental conceptions, as an ens originarium, realissimum, ens entium, and is termed transcendental theology; or, by means of a conception derived from the nature of our own mind, as a supreme intelligence, and must then be entitled natural theology. The person who believes in a transcendental theology alone, is termed a deist; he who acknowledges the possibility of a natural theology also, a theist. The former admits that we can cognize by pure reason alone the existence of a Supreme Being, but at the same time maintains that our conception of this being is purely transcendental, and that all we can say of it is that it possesses all reality, without being able to define it more closely. The second asserts that reason is capable of presenting us, from the analogy with nature, with a more definite conception of this being, and that its operations, as the cause of all things, are the results of intelligence and free will. The former regards the Supreme Being as the cause of the world- whether by the necessity of his nature, or as a free agent, is left undetermined; the latter considers this being as the author of the world.

Transcendental theology aims either at inferring the existence of a Supreme Being from a general experience, without any closer reference to the world to which this experience belongs, and in this case it is called cosmotheology; or it endeavours to cognize the existence of such a being, through mere conceptions, without the aid of experience, and is then termed ontotheology.

Natural theology infers the attributes and the existence of an author of the world, from the constitution of, the order and unity observable in, the world, in which two modes of causality must be admitted to exist- those of nature and freedom. Thus it rises from this world to a supreme intelligence, either as the principle of all natural, or of all moral order and perfection. In the former case it is termed physico-theology, in the latter, ethical or moral-theology.*

*Not theological ethics; for this science contains ethical laws, which presuppose the existence of a Supreme Governor of the world; while moral-theology, on the contrary, is the expression of a conviction of the existence of a Supreme Being, founded upon ethical laws.

As we are wont to understand by the term God not merely an eternal nature, the operations of which are insensate and blind, but a Supreme Being, who is the free and intelligent author of all things, and as it is this latter view alone that can be of interest to humanity, we might, in strict rigour, deny to the deist any belief in God at all, and regard him merely as a maintainer of the existence of a primal being or thing- the supreme cause of all other things. But, as no one ought to be blamed, merely because he does not feel himself justified in maintaining a certain opinion, as if he altogether denied

its truth and asserted the opposite, it is more correct- as it is less harsh- to say, the deist believes in a God, the theist in a living God (summa intelligentia). We shall now proceed to investigate the sources of all these attempts of reason to establish the existence of a Supreme Being.

It may be sufficient in this place to define theoretical knowledge or cognition as knowledge of that which is, and practical knowledge as knowledge of that which ought to be. In this view, the theoretical employment of reason is that by which I cognize a priori (as necessary) that something is, while the practical is that by which I cognize a priori what ought to happen. Now, if it is an indubitably certain, though at the same time an entirely conditioned truth, that something is, or ought to happen, either a certain determinate condition of this truth is absolutely necessary, or such a condition may be arbitrarily presupposed. In the former case the condition is postulated (per thesin), in the latter supposed (per hypothesin). There are certain practical laws- those of morality- which are absolutely necessary. Now, if these laws necessarily presuppose the existence of some being, as the condition of the possibility of their obligatory power, this being must be postulated, because the conditioned, from which we reason to this determinate condition, is itself cognized a priori as absolutely necessary. We shall at some future time show that the moral laws not merely presuppose the existence of a Supreme Being, but also, as themselves absolutely necessary in a different relation, demand or postulate it- although only from a practical point of view. The discussion of this argument we postpone for the present.

When the question relates merely to that which is, not to that which ought to be, the conditioned which is presented in experience is always cogitated as contingent. For this reason its condition cannot be regarded as absolutely necessary, but merely as relatively necessary, or rather as needful; the condition is in itself and a priori a mere arbitrary presupposition in aid of the cognition, by reason, of the conditioned. If, then, we are to possess a theoretical cognition of the absolute necessity of a thing, we cannot attain to this cognition otherwise than a priori by means of conceptions; while it is impossible in this way to cognize the existence of a cause which bears any relation to an existence given in experience.

Theoretical cognition is speculative when it relates to an object or certain conceptions of an object which is not given and cannot be discovered by means of experience. It is opposed to the cognition of nature, which concerns only those objects or predicates which can be presented in a possible experience.

The principle that everything which happens (the empirically contingent) must have a cause, is a principle of the cognition of nature, but not of speculative cognition. For, if we change it into an abstract principle, and deprive it of its reference to experience and the empirical, we shall find that it cannot with justice be regarded any longer as a synthetical proposition, and that it is impossible to discover any mode of transition from that which exists to something entirely different- termed cause. Nay, more, the conception of a cause likewise that of the contingent- loses, in this speculative mode of employing it, all significance, for its objective reality and meaning are comprehensible from experience alone.

When from the existence of the universe and the things in it the existence of a cause of the universe is inferred, reason is proceeding not in the natural, but in the speculative method. For the principle of the former enounces, not that things themselves or substances,

but only that which happens or their states- as empirically contingent, have a cause: the assertion that the existence of substance itself is contingent is not justified by experience, it is the assertion of a reason employing its principles in a speculative manner. If, again, I infer from the form of the universe, from the way in which all things are connected and act and react upon each other, the existence of a cause entirely distinct from the universe- this would again be a judgement of purely speculative reason; because the object in this case- the cause- can never be an object of possible experience. In both these cases the principle of causality, which is valid only in the field of experience- useless and even meaningless beyond this region, would be diverted from its proper destination.

Now I maintain that all attempts of reason to establish a theology by the aid of speculation alone are fruitless, that the principles of reason as applied to nature do not conduct us to any theological truths, and, consequently, that a rational theology can have no existence, unless it is founded upon the laws of morality. For all synthetical principles of the understanding are valid only as immanent in experience; while the cognition of a Supreme Being necessitates their being employed transcendentally, and of this the understanding is quite incapable. If the empirical law of causality is to conduct us to a Supreme Being, this being must belong to the chain of empirical objects- in which case it would be, like all phenomena, itself conditioned. If the possibility of passing the limits of experience be admitted, by means of the dynamical law of the relation of an effect to its cause, what kind of conception shall we obtain by this procedure? Certainly not the conception of a Supreme Being, because experience never presents us with the greatest of all possible effects, and it is only an effect of this character that could witness to the existence of a corresponding cause. If, for the purpose of fully satisfying the requirements of Reason, we recognize her right to assert the existence of a perfect and absolutely necessary being, this can be admitted only from favour, and cannot be regarded as the result or irresistible demonstration. The physico-theological proof may add weight to others- if other proofs there are- by connecting speculation with experience; but in itself it rather prepares the mind for theological cognition, and gives it a right and natural direction, than establishes a sure foundation for theology.

It is now perfectly evident that transcendental questions admit only of transcendental answers- those presented a priori by pure conceptions without the least empirical admixture. But the question in the present case is evidently synthetical- it aims at the extension of our cognition beyond the bounds of experience- it requires an assurance respecting the existence of a being corresponding with the idea in our minds, to which no experience can ever be adequate. Now it has been abundantly proved that all a priori synthetical cognition is possible only as the expression of the formal conditions of a possible experience; and that the validity of all principles depends upon their immanence in the field of experience, that is, their relation to objects of empirical cognition or phenomena. Thus all transcendental procedure in reference to speculative theology is without result.

If any one prefers doubting the conclusiveness of the proofs of our analytic to losing the persuasion of the validity of these old and time honoured arguments, he at least cannot decline answering the question- how he can pass the limits of all possible experience by the help of mere ideas. If he talks of new arguments, or of improvements upon old arguments, I request him to spare me. There is certainly no great choice in this sphere of discussion, as all speculative arguments must at last look for support to the ontological, and I

have, therefore, very little to fear from the argumentative fecundity of the dogmatical defenders of a non-sensuous reason. Without looking upon myself as a remarkably combative person, I shall not decline the challenge to detect the fallacy and destroy the pretensions of every attempt of speculative theology. And yet the hope of better fortune never deserts those who are accustomed to the dogmatical mode of procedure. I shall, therefore, restrict myself to the simple and equitable demand that such reasoners will demonstrate, from the nature of the human mind as well as from that of the other sources of knowledge, how we are to proceed to extend our cognition completely a priori, and to carry it to that point where experience abandons us, and no means exist of guaranteeing the objective reality of our conceptions. In whatever way the understanding may have attained to a conception, the existence of the object of the conception cannot be discovered in it by analysis, because the cognition of the existence of the object depends upon the object's being posited and given in itself apart from the conception. But it is utterly impossible to go beyond our conception, without the aid of experience- which presents to the mind nothing but phenomena, or to attain by the help of mere conceptions to a conviction of the existence of new kinds of objects or supernatural beings.

But although pure speculative reason is far from sufficient to demonstrate the existence of a Supreme Being, it is of the highest utility in correcting our conception of this being- on the supposition that we can attain to the cognition of it by some other means- in making it consistent with itself and with all other conceptions of intelligible objects, clearing it from all that is incompatible with the conception of an ens summum, and eliminating from it all limitations or admixtures of empirical elements.

Transcendental theology is still therefore, notwithstanding its objective insufficiency, of importance in a negative respect; it is useful as a test of the procedure of reason when engaged with pure ideas, no other than a transcendental standard being in this case admissible. For if, from a practical point of view, the hypothesis of a Supreme and All-sufficient Being is to maintain its validity without opposition, it must be of the highest importance to define this conception in a correct and rigorous manner- as the transcendental conception of a necessary being, to eliminate all phenomenal elements (anthropomorphism in its most extended signification), and at the same time to overflow all contradictory assertions- be they atheistic, deistic, or anthropomorphic. This is of course very easy; as the same arguments which demonstrated the inability of human reason to affirm the existence of a Supreme Being must be alike sufficient to prove the invalidity of its denial. For it is impossible to gain from the pure speculation of reason demonstration that there exists no Supreme Being, as the ground of all that exists, or that this being possesses none of those properties which we regard as analogical with the dynamical qualities of a thinking being, or that, as the anthropomorphists would have us believe, it is subject to all the limitations which sensibility imposes upon those intelligences which exist in the world of experience.

A Supreme Being is, therefore, for the speculative reason, a mere ideal, though a faultless one- a conception which perfects and crowns the system of human cognition, but the objective reality of which can neither be proved nor disproved by pure reason. If this defect is ever supplied by a moral theology, the problematic transcendental theology which has preceded, will have been at least serviceable as demonstrating the mental necessity existing for the

conception, by the complete determination of it which it has furnished, and the ceaseless testing of the conclusions of a reason often deceived by sense, and not always in harmony with its own ideas. The attributes of necessity, infinitude, unity, existence apart from the world (and not as a world soul), eternity (free from conditions of time), omnipresence (free from conditions of space), omnipotence, and others, are pure transcendental predicates; and thus the accurate conception of a Supreme Being, which every theology requires, is furnished by transcendental theology alone.

APPENDIX

APPENDIX.

Of the Regulative Employment of the Ideas of
Pure Reason.

The result of all the dialectical attempts of pure reason not only confirms the truth of what we have already proved in our Transcendental Analytic, namely, that all inferences which would lead us beyond the limits of experience are fallacious and groundless, but it at the same time teaches us this important lesson, that human reason has a natural inclination to overstep these limits, and that transcendental ideas are as much the natural property of the reason as categories are of the understanding. There exists this difference, however, that while the categories never mislead us, outward objects being always in perfect harmony therewith, ideas are the parents of irresistible illusions, the severest and most subtle criticism being required to save us from the fallacies which they induce.

Whatever is grounded in the nature of our powers will be found to be in harmony with the final purpose and proper employment of these powers, when once we have discovered their true direction and aim. We are entitled to suppose, therefore, that there exists a mode of employing transcendental ideas which is proper and immanent; although, when we mistake their meaning, and regard them as conceptions of actual things, their mode of application is transcendent and delusive. For it is not the idea itself, but only the employment of the idea in relation to possible experience, that is transcendent or immanent. An idea is employed transcendentally, when it is applied to an object falsely believed to be adequate with and to correspond to it; imminently, when it is applied solely to the employment of the understanding in the sphere of experience. Thus all errors of subreptio- of misapplication, are to be ascribed to defects of judgement, and not to understanding or reason.

Reason never has an immediate relation to an object; it relates immediately to the understanding alone. It is only through the understanding that it can be employed in the field of experience. It does not form conceptions of objects, it merely arranges them and gives to them that unity which they are capable of possessing when the sphere of their application has been extended as widely as possible. Reason avails itself of the conception of the understanding for the sole purpose of producing totality in the different series. This totality the understanding does not concern itself with; its only occupation is the connection of experiences, by which series of conditions in accordance with conceptions are established. The object of reason is, therefore, the understanding and its proper destination. As the latter brings unity into the diversity of objects by means of its conceptions, so the former brings unity into the diversity of conceptions by means of ideas; as it sets the final aim of a collective unity to the operations of the understanding, which without this occupies itself with a distributive unity alone.

I accordingly maintain that transcendental ideas can never be

employed as constitutive ideas, that they cannot be conceptions of objects, and that, when thus considered, they assume a fallacious and dialectical character. But, on the other hand, they are capable of an admirable and indispensably necessary application to objects- as regulative ideas, directing the understanding to a certain aim, the guiding lines towards which all its laws follow, and in which they all meet in one point. This point- though a mere idea (*focus imaginarius*), that is, not a point from which the conceptions of the understanding do really proceed, for it lies beyond the sphere of possible experience- serves, notwithstanding, to give to these conceptions the greatest possible unity combined with the greatest possible extension. Hence arises the natural illusion which induces us to believe that these lines proceed from an object which lies out of the sphere of empirical cognition, just as objects reflected in a mirror appear to be behind it. But this illusion- which we may hinder from imposing upon us- is necessary and unavoidable, if we desire to see, not only those objects which lie before us, but those which are at a great distance behind us; that is to say, when, in the present case, we direct the aims of the understanding, beyond every given experience, towards an extension as great as can possibly be attained.

If we review our cognitions in their entire extent, we shall find that the peculiar business of reason is to arrange them into a system, that is to say, to give them connection according to a principle. This unity presupposes an idea- the idea of the form of a whole (of cognition), preceding the determinate cognition of the parts, and containing the conditions which determine a priori to every part its place and relation to the other parts of the whole system. This idea, accordingly, demands complete unity in the cognition of the understanding- not the unity of a contingent aggregate, but that of a system connected according to necessary laws. It cannot be affirmed with propriety that this idea is a conception of an object; it is merely a conception of the complete unity of the conceptions of objects, in so far as this unity is available to the understanding as a rule. Such conceptions of reason are not derived from nature; on the contrary, we employ them for the interrogation and investigation of nature, and regard our cognition as defective so long as it is not adequate to them. We admit that such a thing as pure earth, pure water, or pure air, is not to be discovered. And yet we require these conceptions (which have their origin in the reason, so far as regards their absolute purity and completeness) for the purpose of determining the share which each of these natural causes has in every phenomenon. Thus the different kinds of matter are all referred to earths, as mere weight; to salts and inflammable bodies, as pure force; and finally, to water and air, as the *vehicula* of the former, or the machines employed by them in their operations- for the purpose of explaining the chemical action and reaction of bodies in accordance with the idea of a mechanism. For, although not actually so expressed, the influence of such ideas of reason is very observable in the procedure of natural philosophers.

If reason is the faculty of deducing the particular from the general, and if the general be certain in se and given, it is only necessary that the judgement should subsume the particular under the general, the particular being thus necessarily determined. I shall term this the demonstrative or *apodeictic* employment of reason. If, however, the general is admitted as problematical only, and is a mere idea, the particular case is certain, but the universality of the rule which applies to this particular case remains a problem. Several particular cases, the certainty of which is beyond doubt, are then taken and examined, for the purpose of discovering whether

the rule is applicable to them; and if it appears that all the particular cases which can be collected follow from the rule, its universality is inferred, and at the same time, all the causes which have not, or cannot be presented to our observation, are concluded to be of the same character with those which we have observed. This I shall term the hypothetical employment of the reason.

The hypothetical exercise of reason by the aid of ideas employed as problematical conceptions is properly not constitutive. That is to say, if we consider the subject strictly, the truth of the rule, which has been employed as an hypothesis, does not follow from the use that is made of it by reason. For how can we know all the possible cases that may arise? some of which may, however, prove exceptions to the universality of the rule. This employment of reason is merely regulative, and its sole aim is the introduction of unity into the aggregate of our particular cognitions, and thereby the approximating of the rule to universality.

The object of the hypothetical employment of reason is therefore the systematic unity of cognitions; and this unity is the criterion of the truth of a rule. On the other hand, this systematic unity- as a mere idea- is in fact merely a unity projected, not to be regarded as given, but only in the light of a problem- a problem which serves, however, as a principle for the various and particular exercise of the understanding in experience, directs it with regard to those cases which are not presented to our observation, and introduces harmony and consistency into all its operations.

All that we can be certain of from the above considerations is that this systematic unity is a logical principle, whose aim is to assist the understanding, where it cannot of itself attain to rules, by means of ideas, to bring all these various rules under one principle, and thus to ensure the most complete consistency and connection that can be attained. But the assertion that objects and the understanding by which they are cognized are so constituted as to be determined to systematic unity, that this may be postulated a priori, without any reference to the interest of reason, and that we are justified in declaring all possible cognitions- empirical and others- to possess systematic unity, and to be subject to general principles from which, notwithstanding their various character, they are all derivable such an assertion can be founded only upon a transcendental principle of reason, which would render this systematic unity not subjectively and logically- in its character of a method, but objectively necessary.

We shall illustrate this by an example. The conceptions of the understanding make us acquainted, among many other kinds of unity, with that of the causality of a substance, which is termed power. The different phenomenal manifestations of the same substance appear at first view to be so very dissimilar that we are inclined to assume the existence of just as many different powers as there are different effects- as, in the case of the human mind, we have feeling, consciousness, imagination, memory, wit, analysis, pleasure, desire and so on. Now we are required by a logical maxim to reduce these differences to as small a number as possible, by comparing them and discovering the hidden identity which exists. We must inquire, for example, whether or not imagination (connected with consciousness), memory, wit, and analysis are not merely different forms of understanding and reason. The idea of a fundamental power, the existence of which no effort of logic can assure us of, is the problem to be solved, for the systematic representation of the existing variety of powers. The logical principle of reason requires us to produce as great a unity as is possible in the system of our cognitions; and the more the phenomena of this and the other power are

found to be identical, the more probable does it become, that they are nothing but different manifestations of one and the same power, which may be called, relatively speaking, a fundamental power. And so with other cases.

These relatively fundamental powers must again be compared with each other, to discover, if possible, the one radical and absolutely fundamental power of which they are but the manifestations. But this unity is purely hypothetical. It is not maintained, that this unity does really exist, but that we must, in the interest of reason, that is, for the establishment of principles for the various rules presented by experience, try to discover and introduce it, so far as is practicable, into the sphere of our cognitions.

But the transcendental employment of the understanding would lead us to believe that this idea of a fundamental power is not problematical, but that it possesses objective reality, and thus the systematic unity of the various powers or forces in a substance is demanded by the understanding and erected into an apodeictic or necessary principle. For, without having attempted to discover the unity of the various powers existing in nature, nay, even after all our attempts have failed, we notwithstanding presuppose that it does exist, and may be, sooner or later, discovered. And this reason does, not only, as in the case above adduced, with regard to the unity of substance, but where many substances, although all to a certain extent homogeneous, are discoverable, as in the case of matter in general. Here also does reason presuppose the existence of the systematic unity of various powers- inasmuch as particular laws of nature are subordinate to general laws; and parsimony in principles is not merely an economical principle of reason, but an essential law of nature.

We cannot understand, in fact, how a logical principle of unity can of right exist, unless we presuppose a transcendental principle, by which such a systematic unit- as a property of objects themselves- is regarded as necessary a priori. For with what right can reason, in its logical exercise, require us to regard the variety of forces which nature displays, as in effect a disguised unity, and to deduce them from one fundamental force or power, when she is free to admit that it is just as possible that all forces should be different in kind, and that a systematic unity is not conformable to the design of nature? In this view of the case, reason would be proceeding in direct opposition to her own destination, by setting as an aim an idea which entirely conflicts with the procedure and arrangement of nature. Neither can we assert that reason has previously inferred this unity from the contingent nature of phenomena. For the law of reason which requires us to seek for this unity is a necessary law, inasmuch as without it we should not possess a faculty of reason, nor without reason a consistent and self-accordant mode of employing the understanding, nor, in the absence of this, any proper and sufficient criterion of empirical truth. In relation to this criterion, therefore, we must suppose the idea of the systematic unity of nature to possess objective validity and necessity.

We find this transcendental presupposition lurking in different forms in the principles of philosophers, although they have neither recognized it nor confessed to themselves its presence. That the diversities of individual things do not exclude identity of species, that the various species must be considered as merely different determinations of a few genera, and these again as divisions of still higher races, and so on- that, accordingly, a certain systematic unity of all possible empirical conceptions, in so far as they can be deduced from higher and more general conceptions, must be sought for, is a scholastic maxim or logical principle, without which

reason could not be employed by us. For we can infer the particular from the general, only in so far as general properties of things constitute the foundation upon which the particular rest.

That the same unity exists in nature is presupposed by philosophers in the well-known scholastic maxim, which forbids us unnecessarily to augment the number of entities or principles (*entia praeter necessitatem non esse multiplicanda*). This maxim asserts that nature herself assists in the establishment of this unity of reason, and that the seemingly infinite diversity of phenomena should not deter us from the expectation of discovering beneath this diversity a unity of fundamental properties, of which the aforesaid variety is but a more or less determined form. This unity, although a mere idea, thinkers have found it necessary rather to moderate the desire than to encourage it. It was considered a great step when chemists were able to reduce all salts to two main genera- acids and alkalis; and they regard this difference as itself a mere variety, or different manifestation of one and the same fundamental material. The different kinds of earths (stones and even metals) chemists have endeavoured to reduce to three, and afterwards to two; but still, not content with this advance, they cannot but think that behind these diversities there lurks but one genus- nay, that even salts and earths have a common principle. It might be conjectured that this is merely an economical plan of reason, for the purpose of sparing itself trouble, and an attempt of a purely hypothetical character, which, when successful, gives an appearance of probability to the principle of explanation employed by the reason. But a selfish purpose of this kind is easily to be distinguished from the idea, according to which every one presupposes that this unity is in accordance with the laws of nature, and that reason does not in this case request, but requires, although we are quite unable to determine the proper limits of this unity.

If the diversity existing in phenomena- a diversity not of form (for in this they may be similar) but of content- were so great that the subtlest human reason could never by comparison discover in them the least similarity (which is not impossible), in this case the logical law of genera would be without foundation, the conception of a genus, nay, all general conceptions would be impossible, and the faculty of the understanding, the exercise of which is restricted to the world of conceptions, could not exist. The logical principle of genera, accordingly, if it is to be applied to nature (by which I mean objects presented to our senses), presupposes a transcendental principle. In accordance with this principle, homogeneity is necessarily presupposed in the variety of phenomena (although we are unable to determine a priori the degree of this homogeneity), because without it no empirical conceptions, and consequently no experience, would be possible.

The logical principle of genera, which demands identity in phenomena, is balanced by another principle- that of species, which requires variety and diversity in things, notwithstanding their accordance in the same genus, and directs the understanding to attend to the one no less than to the other. This principle (of the faculty of distinction) acts as a check upon the reason and reason exhibits in this respect a double and conflicting interest- on the one hand, the interest in the extent (the interest of generality) in relation to genera; on the other, that of the content (the interest of individuality) in relation to the variety of species. In the former case, the understanding cogitates more under its conceptions, in the latter it cogitates more in them. This distinction manifests itself likewise in the habits of thought peculiar to natural philosophers, some of whom- the remarkably speculative heads- may be said to be

hostile to heterogeneity in phenomena, and have their eyes always fixed on the unity of genera, while others- with a strong empirical tendency- aim unceasingly at the analysis of phenomena, and almost destroy in us the hope of ever being able to estimate the character of these according to general principles.

The latter mode of thought is evidently based upon a logical principle, the aim of which is the systematic completeness of all cognitions. This principle authorizes me, beginning at the genus, to descend to the various and diverse contained under it; and in this way extension, as in the former case unity, is assured to the system. For if we merely examine the sphere of the conception which indicates a genus, we cannot discover how far it is possible to proceed in the division of that sphere; just as it is impossible, from the consideration of the space occupied by matter, to determine how far we can proceed in the division of it. Hence every genus must contain different species, and these again different subspecies; and as each of the latter must itself contain a sphere (must be of a certain extent, as a *conceptus communis*), reason demands that no species or sub-species is to be considered as the lowest possible. For a species or sub-species, being always a conception, which contains only what is common to a number of different things, does not completely determine any individual thing, or relate immediately to it, and must consequently contain other conceptions, that is, other sub-species under it. This law of specification may be thus expressed: *entium varietates non temere sunt minuendae*.

But it is easy to see that this logical law would likewise be without sense or application, were it not based upon a transcendental law of specification, which certainly does not require that the differences existing phenomena should be infinite in number, for the logical principle, which merely maintains the indeterminateness of the logical sphere of a conception, in relation to its possible division, does not authorize this statement; while it does impose upon the understanding the duty of searching for subspecies to every species, and minor differences in every difference. For, were there no lower conceptions, neither could there be any higher. Now the understanding cognizes only by means of conceptions; consequently, how far soever it may proceed in division, never by mere intuition, but always by lower and lower conceptions. The cognition of phenomena in their complete determination (which is possible only by means of the understanding) requires an unceasingly continued specification of conceptions, and a progression to ever smaller differences, of which abstraction had been made in the conception of the species, and still more in that of the genus.

This law of specification cannot be deduced from experience; it can never present us with a principle of so universal an application. Empirical specification very soon stops in its distinction of diversities, and requires the guidance of the transcendental law, as a principle of the reason- a law which imposes on us the necessity of never ceasing in our search for differences, even although these may not present themselves to the senses. That absorbent earths are of different kinds could only be discovered by obeying the anticipatory law of reason, which imposes upon the understanding the task of discovering the differences existing between these earths, and supposes that nature is richer in substances than our senses would indicate. The faculty of the understanding belongs to us just as much under the presupposition of differences in the objects of nature, as under the condition that these objects are homogeneous, because we could not possess conceptions, nor make any use of our understanding, were not the

phenomena included under these conceptions in some respects dissimilar, as well as similar, in their character.

Reason thus prepares the sphere of the understanding for the operations of this faculty: 1. By the principle of the homogeneity of the diverse in higher genera; 2. By the principle of the variety of the homogeneous in lower species; and, to complete the systematic unity, it adds, 3. A law of the affinity of all conceptions which prescribes a continuous transition from one species to every other by the gradual increase of diversity. We may term these the principles of the homogeneity, the specification, and the continuity of forms. The latter results from the union of the two former, inasmuch as we regard the systematic connection as complete in thought, in the ascent to higher genera, as well as in the descent to lower species. For all diversities must be related to each other, as they all spring from one highest genus, descending through the different gradations of a more and more extended determination.

We may illustrate the systematic unity produced by the three logical principles in the following manner. Every conception may be regarded as a point, which, as the standpoint of a spectator, has a certain horizon, which may be said to enclose a number of things that may be viewed, so to speak, from that centre. Within this horizon there must be an infinite number of other points, each of which has its own horizon, smaller and more circumscribed; in other words, every species contains sub-species, according to the principle of specification, and the logical horizon consists of smaller horizons (subspecies), but not of points (individuals), which possess no extent. But different horizons or genera, which include under them so many conceptions, may have one common horizon, from which, as from a mid-point, they may be surveyed; and we may proceed thus, till we arrive at the highest genus, or universal and true horizon, which is determined by the highest conception, and which contains under itself all differences and varieties, as genera, species, and subspecies.

To this highest standpoint I am conducted by the law of homogeneity, as to all lower and more variously-determined conceptions by the law of specification. Now as in this way there exists no void in the whole extent of all possible conceptions, and as out of the sphere of these the mind can discover nothing, there arises from the presupposition of the universal horizon above mentioned, and its complete division, the principle: *Non datur vacuum formarum*. This principle asserts that there are not different primitive and highest genera, which stand isolated, so to speak, from each other, but all the various genera are mere divisions and limitations of one highest and universal genus; and hence follows immediately the principle: *Datur continuum formarum*. This principle indicates that all differences of species limit each other, and do not admit of transition from one to another by a saltus, but only through smaller degrees of the difference between the one species and the other. In one word, there are no species or sub-species which (in the view of reason) are the nearest possible to each other; intermediate species or sub-species being always possible, the difference of which from each of the former is always smaller than the difference existing between these.

The first law, therefore, directs us to avoid the notion that there exist different primal genera, and enounces the fact of perfect homogeneity; the second imposes a check upon this tendency to unity and prescribes the distinction of sub-species, before proceeding to apply our general conceptions to individuals. The third unites both the former, by enouncing the fact of homogeneity as existing even in the most various diversity, by means of the

gradual transition from one species to another. Thus it indicates a relationship between the different branches or species, in so far as they all spring from the same stem.

But this logical law of the continuum specierum (formarum logicarum) presupposes a transcendental principle (lex continui in natura), without which the understanding might be led into error, by following the guidance of the former, and thus perhaps pursuing a path contrary to that prescribed by nature. This law must, consequently, be based upon pure transcendental, and not upon empirical, considerations. For, in the latter case, it would come later than the system; whereas it is really itself the parent of all that is systematic in our cognition of nature. These principles are not mere hypotheses employed for the purpose of experimenting upon nature; although when any such connection is discovered, it forms a solid ground for regarding the hypothetical unity as valid in the sphere of nature- and thus they are in this respect not without their use. But we go farther, and maintain that it is manifest that these principles of parsimony in fundamental causes, variety in effects, and affinity in phenomena, are in accordance both with reason and nature, and that they are not mere methods or plans devised for the purpose of assisting us in our observation of the external world.

But it is plain that this continuity of forms is a mere idea, to which no adequate object can be discovered in experience. And this for two reasons. First, because the species in nature are really divided, and hence form quanta discreta; and, if the gradual progression through their affinity were continuous, the intermediate members lying between two given species must be infinite in number, which is impossible. Secondly, because we cannot make any determinate empirical use of this law, inasmuch as it does not present us with any criterion of affinity which could aid us in determining how far we ought to pursue the graduation of differences: it merely contains a general indication that it is our duty to seek for and, if possible, to discover them.

When we arrange these principles of systematic unity in the order conformable to their employment in experience, they will stand thus: Variety, Affinity, Unity, each of them, as ideas, being taken in the highest degree of their completeness. Reason presupposes the existence of cognitions of the understanding, which have a direct relation to experience, and aims at the ideal unity of these cognitions- a unity which far transcends all experience or empirical notions. The affinity of the diverse, notwithstanding the differences existing between its parts, has a relation to things, but a still closer one to the mere properties and powers of things. For example, imperfect experience may represent the orbits of the planets as circular. But we discover variations from this course, and we proceed to suppose that the planets revolve in a path which, if not a circle, is of a character very similar to it. That is to say, the movements of those planets which do not form a circle will approximate more or less to the properties of a circle, and probably form an ellipse. The paths of comets exhibit still greater variations, for, so far as our observation extends, they do not return upon their own course in a circle or ellipse. But we proceed to the conjecture that comets describe a parabola, a figure which is closely allied to the ellipse. In fact, a parabola is merely an ellipse, with its longer axis produced to an indefinite extent. Thus these principles conduct us to a unity in the genera of the forms of these orbits, and, proceeding farther, to a unity as regards the cause of the motions of the heavenly bodies- that is, gravitation. But we go on extending our conquests over nature, and endeavour to explain all seeming deviations from these rules, and even make additions to our system

which no experience can ever substantiate- for example, the theory, in affinity with that of ellipses, of hyperbolic paths of comets, pursuing which, these bodies leave our solar system and, passing from sun to sun, unite the most distant parts of the infinite universe, which is held together by the same moving power.

The most remarkable circumstance connected with these principles is that they seem to be transcendental, and, although only containing ideas for the guidance of the empirical exercise of reason, and although this empirical employment stands to these ideas in an asymptotic relation alone (to use a mathematical term), that is, continually approximate, without ever being able to attain to them, they possess, notwithstanding, as a priori synthetical propositions, objective though undetermined validity, and are available as rules for possible experience. In the elaboration of our experience, they may also be employed with great advantage, as heuristic* principles. A transcendental deduction of them cannot be made; such a deduction being always impossible in the case of ideas, as has been already shown.

*From the Greek, eurhioko.

We distinguished, in the Transcendental Analytic, the dynamical principles of the understanding, which are regulative principles of intuition, from the mathematical, which are constitutive principles of intuition. These dynamical laws are, however, constitutive in relation to experience, inasmuch as they render the conceptions without which experience could not exist possible a priori. But the principles of pure reason cannot be constitutive even in regard to empirical conceptions, because no sensuous schema corresponding to them can be discovered, and they cannot therefore have an object in concreto. Now, if I grant that they cannot be employed in the sphere of experience, as constitutive principles, how shall I secure for them employment and objective validity as regulative principles, and in what way can they be so employed?

The understanding is the object of reason, as sensibility is the object of the understanding. The production of systematic unity in all the empirical operations of the understanding is the proper occupation of reason; just as it is the business of the understanding to connect the various content of phenomena by means of conceptions, and subject them to empirical laws. But the operations of the understanding are, without the schemata of sensibility, undetermined; and, in the same manner, the unity of reason is perfectly undetermined as regards the conditions under which, and the extent to which, the understanding ought to carry the systematic connection of its conceptions. But, although it is impossible to discover in intuition a schema for the complete systematic unity of all the conceptions of the understanding, there must be some analogon of this schema. This analogon is the idea of the maximum of the division and the connection of our cognition in one principle. For we may have a determinate notion of a maximum and an absolutely perfect, all the restrictive conditions which are connected with an indeterminate and various content having been abstracted. Thus the idea of reason is analogous with a sensuous schema, with this difference, that the application of the categories to the schema of reason does not present a cognition of any object (as is the case with the application of the categories to sensuous schemata), but merely provides us with a rule or principle for the systematic unity of the exercise of the understanding. Now, as every principle which imposes upon the exercise of the understanding a priori compliance with the rule of systematic unity also relates, although only in an indirect

manner, to an object of experience, the principles of pure reason will also possess objective reality and validity in relation to experience. But they will not aim at determining our knowledge in regard to any empirical object; they will merely indicate the procedure, following which the empirical and determinate exercise of the understanding may be in complete harmony and connection with itself- a result which is produced by its being brought into harmony with the principle of systematic unity, so far as that is possible, and deduced from it.

I term all subjective principles, which are not derived from observation of the constitution of an object, but from the interest which Reason has in producing a certain completeness in her cognition of that object, maxims of reason. Thus there are maxims of speculative reason, which are based solely upon its speculative interest, although they appear to be objective principles.

When principles which are really regulative are regarded as constitutive, and employed as objective principles, contradictions must arise; but if they are considered as mere maxims, there is no room for contradictions of any kind, as they then merely indicate the different interests of reason, which occasion differences in the mode of thought. In effect, Reason has only one single interest, and the seeming contradiction existing between her maxims merely indicates a difference in, and a reciprocal limitation of, the methods by which this interest is satisfied.

This reasoner has at heart the interest of diversity- in accordance with the principle of specification; another, the interest of unity- in accordance with the principle of aggregation. Each believes that his judgement rests upon a thorough insight into the subject he is examining, and yet it has been influenced solely by a greater or less degree of adherence to some one of the two principles, neither of which are objective, but originate solely from the interest of reason, and on this account to be termed maxims rather than principles. When I observe intelligent men disputing about the distinctive characteristics of men, animals, or plants, and even of minerals, those on the one side assuming the existence of certain national characteristics, certain well-defined and hereditary distinctions of family, race, and so on, while the other side maintain that nature has endowed all races of men with the same faculties and dispositions, and that all differences are but the result of external and accidental circumstances- I have only to consider for a moment the real nature of the subject of discussion, to arrive at the conclusion that it is a subject far too deep for us to judge of, and that there is little probability of either party being able to speak from a perfect insight into and understanding of the nature of the subject itself. Both have, in reality, been struggling for the twofold interest of reason; the one maintaining the one interest, the other the other. But this difference between the maxims of diversity and unity may easily be reconciled and adjusted; although, so long as they are regarded as objective principles, they must occasion not only contradictions and polemic, but place hinderances in the way of the advancement of truth, until some means is discovered of reconciling these conflicting interests, and bringing reason into union and harmony with itself.

The same is the case with the so-called law discovered by Leibnitz, and supported with remarkable ability by Bonnet- the law of the continuous gradation of created beings, which is nothing more than an inference from the principle of affinity; for observation and study of the order of nature could never present it to the mind as an objective truth. The steps of this ladder, as they appear in experience, are too far apart from each other, and the so-called petty differences between different kinds of animals are in nature

commonly so wide separations that no confidence can be placed in such views (particularly when we reflect on the great variety of things, and the ease with which we can discover resemblances), and no faith in the laws which are said to express the aims and purposes of nature. On the other hand, the method of investigating the order of nature in the light of this principle, and the maxim which requires us to regard this order- it being still undetermined how far it extends- as really existing in nature, is beyond doubt a legitimate and excellent principle of reason- a principle which extends farther than any experience or observation of ours and which, without giving us any positive knowledge of anything in the region of experience, guides us to the goal of systematic unity.

Of the Ultimate End of the Natural Dialectic of Human Reason.

The ideas of pure reason cannot be, of themselves and in their own nature, dialectical; it is from their misemployment alone that fallacies and illusions arise. For they originate in the nature of reason itself, and it is impossible that this supreme tribunal for all the rights and claims of speculation should be itself undeserving of confidence and promotive of error. It is to be expected, therefore, that these ideas have a genuine and legitimate aim. It is true, the mob of sophists raise against reason the cry of inconsistency and contradiction, and affect to despise the government of that faculty, because they cannot understand its constitution, while it is to its beneficial influences alone that they owe the position and the intelligence which enable them to criticize and to blame its procedure.

We cannot employ an a priori conception with certainty, until we have made a transcendental deduction therefore. The ideas of pure reason do not admit of the same kind of deduction as the categories. But if they are to possess the least objective validity, and to represent anything but mere creations of thought (*entia rationis ratiocinantis*), a deduction of them must be possible. This deduction will complete the critical task imposed upon pure reason; and it is to this part Of our labours that we now proceed.

There is a great difference between a thing's being presented to the mind as an object in an absolute sense, or merely as an ideal object. In the former case I employ my conceptions to determine the object; in the latter case nothing is present to the mind but a mere schema, which does not relate directly to an object, not even in a hypothetical sense, but which is useful only for the purpose of representing other objects to the mind, in a mediate and indirect manner, by means of their relation to the idea in the intellect. Thus I say the conception of a supreme intelligence is a mere idea; that is to say, its objective reality does not consist in the fact that it has an immediate relation to an object (for in this sense we have no means of establishing its objective validity), it is merely a schema constructed according to the necessary conditions of the unity of reason- the schema of a thing in general, which is useful towards the production of the highest degree of systematic unity in the empirical exercise of reason, in which we deduce this or that object of experience from the imaginary object of this idea, as the ground or cause of the said object of experience. In this way, the idea is properly a heuristic, and not an ostensive, conception; it does not give us any information respecting the constitution of an object, it merely indicates how, under the guidance of the idea, we ought to investigate the constitution and the relations of objects in the world of experience. Now, if it can be shown that the three kinds of transcendental ideas (psychological, cosmological, and

theological), although not relating directly to any object nor determining it, do nevertheless, on the supposition of the existence of an ideal object, produce systematic unity in the laws of the empirical employment of the reason, and extend our empirical cognition, without ever being inconsistent or in opposition with it- it must be a necessary maxim of reason to regulate its procedure according to these ideas. And this forms the transcendental deduction of all speculative ideas, not as constitutive principles of the extension of our cognition beyond the limits of our experience, but as regulative principles of the systematic unity of empirical cognition, which is by the aid of these ideas arranged and emended within its own proper limits, to an extent unattainable by the operation of the principles of the understanding alone.

I shall make this plainer. Guided by the principles involved in these ideas, we must, in the first place, so connect all the phenomena, actions, and feelings of the mind, as if it were a simple substance, which, endowed with personal identity, possesses a permanent existence (in this life at least), while its states, among which those of the body are to be included as external conditions, are in continual change. Secondly, in cosmology, we must investigate the conditions of all natural phenomena, internal as well as external, as if they belonged to a chain infinite and without any prime or supreme member, while we do not, on this account, deny the existence of intelligible grounds of these phenomena, although we never employ them to explain phenomena, for the simple reason that they are not objects of our cognition. Thirdly, in the sphere of theology, we must regard the whole system of possible experience as forming an absolute, but dependent and sensuously-conditioned unity, and at the same time as based upon a sole, supreme, and all-sufficient ground existing apart from the world itself- a ground which is a self-subsistent, primeval and creative reason, in relation to which we so employ our reason in the field of experience, as if all objects drew their origin from that archetype of all reason. In other words, we ought not to deduce the internal phenomena of the mind from a simple thinking substance, but deduce them from each other under the guidance of the regulative idea of a simple being; we ought not to deduce the phenomena, order, and unity of the universe from a supreme intelligence, but merely draw from this idea of a supremely wise cause the rules which must guide reason in its connection of causes and effects.

Now there is nothing to hinder us from admitting these ideas to possess an objective and hyperbolic existence, except the cosmological ideas, which lead reason into an antinomy: the psychological and theological ideas are not antinomical. They contain no contradiction; and how, then, can any one dispute their objective reality, since he who denies it knows as little about their possibility as we who affirm? And yet, when we wish to admit the existence of a thing, it is not sufficient to convince ourselves that there is no positive obstacle in the way; for it cannot be allowable to regard mere creations of thought, which transcend, though they do not contradict, all our conceptions, as real and determinate objects, solely upon the authority of a speculative reason striving to compass its own aims. They cannot, therefore, be admitted to be real in themselves; they can only possess a comparative reality- that of a schema of the regulative principle of the systematic unity of all cognition. They are to be regarded not as actual things, but as in some measure analogous to them. We abstract from the object of the idea all the conditions which limit the exercise of our understanding, but which, on the other hand, are the sole conditions of our possessing a determinate conception of any given thing. And thus we

cogitate a something, of the real nature of which we have not the least conception, but which we represent to ourselves as standing in a relation to the whole system of phenomena, analogous to that in which phenomena stand to each other.

By admitting these ideal beings, we do not really extend our cognitions beyond the objects of possible experience; we extend merely the empirical unity of our experience, by the aid of systematic unity, the schema of which is furnished by the idea, which is therefore valid- not as a constitutive, but as a regulative principle. For although we posit a thing corresponding to the idea- a something, an actual existence- we do not on that account aim at the extension of our cognition by means of transcendent conceptions. This existence is purely ideal, and not objective; it is the mere expression of the systematic unity which is to be the guide of reason in the field of experience. There are no attempts made at deciding what the ground of this unity may be, or what the real nature of this imaginary being.

Thus the transcendental and only determinate conception of God, which is presented to us by speculative reason, is in the strictest sense deistic. In other words, reason does not assure us of the objective validity of the conception; it merely gives us the idea of something, on which the supreme and necessary unity of all experience is based. This something we cannot, following the analogy of a real substance, cogitate otherwise than as the cause of all things operating in accordance with rational laws, if we regard it as an individual object; although we should rest contented with the idea alone as a regulative principle of reason, and make no attempt at completing the sum of the conditions imposed by thought. This attempt is, indeed, inconsistent with the grand aim of complete systematic unity in the sphere of cognition- a unity to which no bounds are set by reason.

Hence it happens that, admitting a divine being, I can have no conception of the internal possibility of its perfection, or of the necessity of its existence. The only advantage of this admission is that it enables me to answer all other questions relating to the contingent, and to give reason the most complete satisfaction as regards the unity which it aims at attaining in the world of experience. But I cannot satisfy reason with regard to this hypothesis itself; and this proves that it is not its intelligence and insight into the subject, but its speculative interest alone which induces it to proceed from a point lying far beyond the sphere of our cognition, for the purpose of being able to consider all objects as parts of a systematic whole.

Here a distinction presents itself, in regard to the way in which we may cogitate a presupposition- a distinction which is somewhat subtle, but of great importance in transcendental philosophy. I may have sufficient grounds to admit something, or the existence of something, in a relative point of view (*suppositio relativa*), without being justified in admitting it in an absolute sense (*suppositio absoluta*). This distinction is undoubtedly requisite, in the case of a regulative principle, the necessity of which we recognize, though we are ignorant of the source and cause of that necessity, and which we assume to be based upon some ultimate ground, for the purpose of being able to cogitate the universality of the principle in a more determinate way. For example, I cogitate the existence of a being corresponding to a pure transcendental idea. But I cannot admit that this being exists absolutely and in itself, because all of the conceptions by which I can cogitate an object in a determinate manner fall short of assuring me of its existence; nay, the conditions of the objective validity of my conceptions are excluded by the idea- by the very fact of its being an

idea. The conceptions of reality, substance, causality, nay, even that of necessity in existence, have no significance out of the sphere of empirical cognition, and cannot, beyond that sphere, determine any object. They may, accordingly, be employed to explain the possibility of things in the world of sense, but they are utterly inadequate to explain the possibility of the universe itself considered as a whole; because in this case the ground of explanation must lie out of and beyond the world, and cannot, therefore, be an object of possible experience. Now, I may admit the existence of an incomprehensible being of this nature- the object of a mere idea, relatively to the world of sense; although I have no ground to admit its existence absolutely and in itself. For if an idea (that of a systematic and complete unity, of which I shall presently speak more particularly) lies at the foundation of the most extended empirical employment of reason, and if this idea cannot be adequately represented in concreto, although it is indispensably necessary for the approximation of empirical unity to the highest possible degree- I am not only authorized, but compelled, to realize this idea, that is, to posit a real object corresponding thereto. But I cannot profess to know this object; it is to me merely a something, to which, as the ground of systematic unity in cognition, I attribute such properties as are analogous to the conceptions employed by the understanding in the sphere of experience. Following the analogy of the notions of reality, substance, causality, and necessity, I cogitate a being, which possesses all these attributes in the highest degree; and, as this idea is the offspring of my reason alone, I cogitate this being as self-subsistent reason, and as the cause of the universe operating by means of ideas of the greatest possible harmony and unity. Thus I abstract all conditions that would limit my idea, solely for the purpose of rendering systematic unity possible in the world of empirical diversity, and thus securing the widest possible extension for the exercise of reason in that sphere. This I am enabled to do, by regarding all connections and relations in the world of sense, as if they were the dispositions of a supreme reason, of which our reason is but a faint image. I then proceed to cogitate this Supreme Being by conceptions which have, properly, no meaning or application, except in the world of sense. But as I am authorized to employ the transcendental hypothesis of such a being in a relative respect alone, that is, as the substratum of the greatest possible unity in experience- I may attribute to a being which I regard as distinct from the world, such properties as belong solely to the sphere of sense and experience. For I do not desire, and am not justified in desiring, to cognize this object of my idea, as it exists in itself; for I possess no conceptions sufficient for or task, those of reality, substance, causality, nay, even that of necessity in existence, losing all significance, and becoming merely the signs of conceptions, without content and without applicability, when I attempt to carry them beyond the limits of the world of sense. I cogitate merely the relation of a perfectly unknown being to the greatest possible systematic unity of experience, solely for the purpose of employing it as the schema of the regulative principle which directs reason in its empirical exercise.

It is evident, at the first view, that we cannot presuppose the reality of this transcendental object, by means of the conceptions of reality, substance, causality, and so on, because these conceptions cannot be applied to anything that is distinct from the world of sense. Thus the supposition of a Supreme Being or cause is purely relative; it is cogitated only in behalf of the systematic unity of experience; such a being is but a something, of whose existence in itself we have not the least conception. Thus, too, it becomes

sufficiently manifest why we required the idea of a necessary being in relation to objects given by sense, although we can never have the least conception of this being, or of its absolute necessity.

And now we can clearly perceive the result of our transcendental dialectic, and the proper aim of the ideas of pure reason- which become dialectical solely from misunderstanding and inconsiderateness. Pure reason is, in fact, occupied with itself, and not with any object. Objects are not presented to it to be embraced in the unity of an empirical conception; it is only the cognitions of the understanding that are presented to it, for the purpose of receiving the unity of a rational conception, that is, of being connected according to a principle. The unity of reason is the unity of system; and this systematic unity is not an objective principle, extending its dominion over objects, but a subjective maxim, extending its authority over the empirical cognition of objects. The systematic connection which reason gives to the empirical employment of the understanding not only advances the extension of that employment, but ensures its correctness, and thus the principle of a systematic unity of this nature is also objective, although only in an indefinite respect (*principium vagum*). It is not, however, a constitutive principle, determining an object to which it directly relates; it is merely a regulative principle or maxim, advancing and strengthening the empirical exercise of reason, by the opening up of new paths of which the understanding is ignorant, while it never conflicts with the laws of its exercise in the sphere of experience.

But reason cannot cogitate this systematic unity, without at the same time cogitating an object of the idea- an object that cannot be presented in any experience, which contains no concrete example of a complete systematic unity. This being (*ens rationis ratiocinatae*) is therefore a mere idea and is not assumed to be a thing which is real absolutely and in itself. On the contrary, it forms merely the problematical foundation of the connection which the mind introduces among the phenomena of the sensuous world. We look upon this connection, in the light of the above-mentioned idea, as if it drew its origin from the supposed being which corresponds to the idea. And yet all we aim at is the possession of this idea as a secure foundation for the systematic unity of experience- a unity indispensable to reason, advantageous to the understanding, and promotive of the interests of empirical cognition.

We mistake the true meaning of this idea when we regard it as an enunciation, or even as a hypothetical declaration of the existence of a real thing, which we are to regard as the origin or ground of a systematic constitution of the universe. On the contrary, it is left completely undetermined what the nature or properties of this so-called ground may be. The idea is merely to be adopted as a point of view, from which this unity, so essential to reason and so beneficial to the understanding, may be regarded as radiating. In one word, this transcendental thing is merely the schema of a regulative principle, by means of which Reason, so far as in her lies, extends the dominion of systematic unity over the whole sphere of experience.

The first object of an idea of this kind is the ego, considered merely as a thinking nature or soul. If I wish to investigate the properties of a thinking being, I must interrogate experience. But I find that I can apply none of the categories to this object, the schema of these categories, which is the condition of their application, being given only in sensuous intuition. But I cannot thus attain to the cognition of a systematic unity of all the phenomena of the internal sense. Instead, therefore, of an empirical conception of what the soul really is, reason takes the conception

of the empirical unity of all thought, and, by cogitating this unity as unconditioned and primitive, constructs the rational conception or idea of a simple substance which is in itself unchangeable, possessing personal identity, and in connection with other real things external to it; in one word, it constructs the idea of a simple self-subsistent intelligence. But the real aim of reason in this procedure is the attainment of principles of systematic unity for the explanation of the phenomena of the soul. That is, reason desires to be able to represent all the determinations of the internal sense as existing in one subject, all powers as deduced from one fundamental power, all changes as mere varieties in the condition of a being which is permanent and always the same, and all phenomena in space as entirely different in their nature from the procedure of thought. Essential simplicity (with the other attributes predicated of the ego) is regarded as the mere schema of this regulative principle; it is not assumed that it is the actual ground of the properties of the soul. For these properties may rest upon quite different grounds, of which we are completely ignorant; just as the above predicates could not give us any knowledge of the soul as it is in itself, even if we regarded them as valid in respect of it, inasmuch as they constitute a mere idea, which cannot be represented in concreto. Nothing but good can result from a psychological idea of this kind, if we only take proper care not to consider it as more than an idea; that is, if we regard it as valid merely in relation to the employment of reason, in the sphere of the phenomena of the soul. Under the guidance of this idea, or principle, no empirical laws of corporeal phenomena are called in to explain that which is a phenomenon of the internal sense alone; no windy hypotheses of the generation, annihilation, and palingenesis of souls are admitted. Thus the consideration of this object of the internal sense is kept pure, and unmixed with heterogeneous elements; while the investigation of reason aims at reducing all the grounds of explanation employed in this sphere of knowledge to a single principle. All this is best effected, nay, cannot be effected otherwise than by means of such a schema, which requires us to regard this ideal thing as an actual existence. The psychological idea is, therefore, meaningless and inapplicable, except as the schema of a regulative conception. For, if I ask whether the soul is not really of a spiritual nature- it is a question which has no meaning. From such a conception has been abstracted, not merely all corporeal nature, but all nature, that is, all the predicates of a possible experience; and consequently, all the conditions which enable us to cogitate an object to this conception have disappeared. But, if these conditions are absent, it is evident that the conception is meaningless.

The second regulative idea of speculative reason is the conception of the universe. For nature is properly the only object presented to us, in regard to which reason requires regulative principles. Nature is twofold- thinking and corporeal nature. To cogitate the latter in regard to its internal possibility, that is, to determine the application of the categories to it, no idea is required- no representation which transcends experience. In this sphere, therefore, an idea is impossible, sensuous intuition being our only guide; while, in the sphere of psychology, we require the fundamental idea (I), which contains a priori a certain form of thought namely, the unity of the ego. Pure reason has, therefore, nothing left but nature in general, and the completeness of conditions in nature in accordance with some principle. The absolute totality of the series of these conditions is an idea, which can never be fully realized in the empirical exercise of reason, while it is serviceable as a rule for the procedure of reason in relation to that totality. It requires

us, in the explanation of given phenomena (in the regress or ascent in the series), to proceed as if the series were infinite in itself, that is, were prolonged in indefinitum; while on the other hand, where reason is regarded as itself the determining cause (in the region of freedom), we are required to proceed as if we had not before us an object of sense, but of the pure understanding. In this latter case, the conditions do not exist in the series of phenomena, but may be placed quite out of and beyond it, and the series of conditions may be regarded as if it had an absolute beginning from an intelligible cause. All this proves that the cosmological ideas are nothing but regulative principles, and not constitutive; and that their aim is not to realize an actual totality in such series. The full discussion of this subject will be found in its proper place in the chapter on the antinomy of pure reason.

The third idea of pure reason, containing the hypothesis of a being which is valid merely as a relative hypothesis, is that of the one and all-sufficient cause of all cosmological series, in other words, the idea of God. We have not the slightest ground absolutely to admit the existence of an object corresponding to this idea; for what can empower or authorize us to affirm the existence of a being of the highest perfection- a being whose existence is absolutely necessary- merely because we possess the conception of such a being? The answer is: It is the existence of the world which renders this hypothesis necessary. But this answer makes it perfectly evident that the idea of this being, like all other speculative ideas, is essentially nothing more than a demand upon reason that it shall regulate the connection which it and its subordinate faculties introduce into the phenomena of the world by principles of systematic unity and, consequently, that it shall regard all phenomena as originating from one all-embracing being, as the supreme and all-sufficient cause. From this it is plain that the only aim of reason in this procedure is the establishment of its own formal rule for the extension of its dominion in the world of experience; that it does not aim at an extension of its cognition beyond the limits of experience; and that, consequently, this idea does not contain any constitutive principle.

The highest formal unity, which is based upon ideas alone, is the unity of all things- a unity in accordance with an aim or purpose; and the speculative interest of reason renders it necessary to regard all order in the world as if it originated from the intention and design of a supreme reason. This principle unfolds to the view of reason in the sphere of experience new and enlarged prospects, and invites it to connect the phenomena of the world according to teleological laws, and in this way to attain to the highest possible degree of systematic unity. The hypothesis of a supreme intelligence, as the sole cause of the universe- an intelligence which has for us no more than an ideal existence- is accordingly always of the greatest service to reason. Thus, if we presuppose, in relation to the figure of the earth (which is round, but somewhat flattened at the poles),* or that of mountains or seas, wise designs on the part of an author of the universe, we cannot fail to make, by the light of this supposition, a great number of interesting discoveries. If we keep to this hypothesis, as a principle which is purely regulative, even error cannot be very detrimental. For, in this case, error can have no more serious consequences than that, where we expected to discover a teleological connection (nexus finalis), only a mechanical or physical connection appears. In such a case, we merely fail to find the additional form of unity we expected, but we do not lose the rational unity which the mind requires in its procedure in experience. But even a miscarriage of this sort cannot affect the

law in its general and teleological relations. For although we may convict an anatomist of an error, when he connects the limb of some animal with a certain purpose, it is quite impossible to prove in a single case that any arrangement of nature, be it what it may, is entirely without aim or design. And thus medical physiology, by the aid of a principle presented to it by pure reason, extends its very limited empirical knowledge of the purposes of the different parts of an organized body so far that it may be asserted with the utmost confidence, and with the approbation of all reflecting men, that every organ or bodily part of an animal has its use and answers a certain design. Now, this is a supposition which, if regarded as of a constitutive character, goes much farther than any experience or observation of ours can justify. Hence it is evident that it is nothing more than a regulative principle of reason, which aims at the highest degree of systematic unity, by the aid of the idea of a causality according to design in a supreme cause- a cause which it regards as the highest intelligence.

*The advantages which a circular form, in the case of the earth, has over every other, are well known. But few are aware that the slight flattening at the poles, which gives it the figure of a spheroid, is the only cause which prevents the elevations of continents or even of mountains, perhaps thrown up by some internal convulsion, from continually altering the position of the axis of the earth- and that to some considerable degree in a short time. The great protuberance of the earth under the Equator serves to overbalance the impetus of all other masses of earth, and thus to preserve the axis of the earth, so far as we can observe, in its present position. And yet this wise arrangement has been unthinkingly explained from the equilibrium of the formerly fluid mass.

If, however, we neglect this restriction of the idea to a purely regulative influence, reason is betrayed into numerous errors. For it has then left the ground of experience, in which alone are to be found the criteria of truth, and has ventured into the region of the incomprehensible and unsearchable, on the heights of which it loses its power and collectedness, because it has completely severed its connection with experience.

The first error which arises from our employing the idea of a Supreme Being as a constitutive (in repugnance to the very nature of an idea), and not as a regulative principle, is the error of inactive reason (*ignava ratio*).* We may so term every principle which requires us to regard our investigations of nature as absolutely complete, and allows reason to cease its inquiries, as if it had fully executed its task. Thus the psychological idea of the ego, when employed as a constitutive principle for the explanation of the phenomena of the soul, and for the extension of our knowledge regarding this subject beyond the limits of experience- even to the condition of the soul after death- is convenient enough for the purposes of pure reason, but detrimental and even ruinous to its interests in the sphere of nature and experience. The dogmatizing spiritualist explains the unchanging unity of our personality through all changes of condition from the unity of a thinking substance, the interest which we take in things and events that can happen only after our death, from a consciousness of the immaterial nature of our thinking subject, and so on. Thus he dispenses with all empirical investigations into the cause of these internal phenomena, and with all possible explanations of them upon purely natural grounds; while, at the dictation of a transcendent reason, he passes by the immanent sources of cognition in experience,

greatly to his own ease and convenience, but to the sacrifice of all, genuine insight and intelligence. These prejudicial consequences become still more evident, in the case of the dogmatical treatment of our idea of a Supreme Intelligence, and the theological system of nature (physico-theology) which is falsely based upon it. For, in this case, the aims which we observe in nature, and often those which we merely fancy to exist, make the investigation of causes a very easy task, by directing us to refer such and such phenomena immediately to the unsearchable will and counsel of the Supreme Wisdom, while we ought to investigate their causes in the general laws of the mechanism of matter. We are thus recommended to consider the labour of reason as ended, when we have merely dispensed with its employment, which is guided surely and safely only by the order of nature and the series of changes in the world-which are arranged according to immanent and general laws. This error may be avoided, if we do not merely consider from the view-point of final aims certain parts of nature, such as the division and structure of a continent, the constitution and direction of certain mountain-chains, or even the organization existing in the vegetable and animal kingdoms, but look upon this systematic unity of nature in a perfectly general way, in relation to the idea of a Supreme Intelligence. If we pursue this advice, we lay as a foundation for all investigation the conformity to aims of all phenomena of nature in accordance with universal laws, for which no particular arrangement of nature is exempt, but only cognized by us with more or less difficulty; and we possess a regulative principle of the systematic unity of a teleological connection, which we do not attempt to anticipate or predetermine. All that we do, and ought to do, is to follow out the physico-mechanical connection in nature according to general laws, with the hope of discovering, sooner or later, the teleological connection also. Thus, and thus only, can the principle of final unity aid in the extension of the employment of reason in the sphere of experience, without being in any case detrimental to its interests.

*This was the term applied by the old dialecticians to a sophistical argument, which ran thus: If it is your fate to die of this disease, you will die, whether you employ a physician or not. Cicero says that this mode of reasoning has received this appellation, because, if followed, it puts an end to the employment of reason in the affairs of life. For a similar reason, I have applied this designation to the sophistical argument of pure reason.

The second error which arises from the misconception of the principle of systematic unity is that of perverted reason (*perversa ratio, usteron roteron rationis*). The idea of systematic unity is available as a regulative principle in the connection of phenomena according to general natural laws; and, how far soever we have to travel upon the path of experience to discover some fact or event, this idea requires us to believe that we have approached all the more nearly to the completion of its use in the sphere of nature, although that completion can never be attained. But this error reverses the procedure of reason. We begin by hypostatizing the principle of systematic unity, and by giving an anthropomorphic determination to the conception of a Supreme Intelligence, and then proceed forcibly to impose aims upon nature. Thus not only does teleology, which ought to aid in the completion of unity in accordance with general laws, operate to the destruction of its influence, but it hinders reason from attaining its proper aim, that is, the proof, upon natural grounds, of the existence of a supreme intelligent cause. For,

if we cannot presuppose supreme finality in nature a priori, that is, as essentially belonging to nature, how can we be directed to endeavour to discover this unity and, rising gradually through its different degrees, to approach the supreme perfection of an author of all- a perfection which is absolutely necessary, and therefore cognizable a priori? The regulative principle directs us to presuppose systematic unity absolutely and, consequently, as following from the essential nature of things- but only as a unity of nature, not merely cognized empirically, but presupposed a priori, although only in an indeterminate manner. But if I insist on basing nature upon the foundation of a supreme ordaining Being, the unity of nature is in effect lost. For, in this case, it is quite foreign and unessential to the nature of things, and cannot be cognized from the general laws of nature. And thus arises a vicious circular argument, what ought to have been proved having been presupposed.

To take the regulative principle of systematic unity in nature for a constitutive principle, and to hypostatize and make a cause out of that which is properly the ideal ground of the consistent and harmonious exercise of reason, involves reason in inextricable embarrassments. The investigation of nature pursues its own path under the guidance of the chain of natural causes, in accordance with the general laws of nature, and ever follows the light of the idea of an author of the universe- not for the purpose of deducing the finality, which it constantly pursues, from this Supreme Being, but to attain to the cognition of his existence from the finality which it seeks in the existence of the phenomena of nature, and, if possible, in that of all things to cognize this being, consequently, as absolutely necessary. Whether this latter purpose succeed or not, the idea is and must always be a true one, and its employment, when merely regulative, must always be accompanied by truthful and beneficial results.

Complete unity, in conformity with aims, constitutes absolute perfection. But if we do not find this unity in the nature of the things which go to constitute the world of experience, that is, of objective cognition, consequently in the universal and necessary laws of nature, how can we infer from this unity the idea of the supreme and absolutely necessary perfection of a primal being, which is the origin of all causality? The greatest systematic unity, and consequently teleological unity, constitutes the very foundation of the possibility of the most extended employment of human reason. The idea of unity is therefore essentially and indissolubly connected with the nature of our reason. This idea is a legislative one; and hence it is very natural that we should assume the existence of a legislative reason corresponding to it, from which the systematic unity of nature- the object of the operations of reason- must be derived.

In the course of our discussion of the antinomies, we stated that it is always possible to answer all the questions which pure reason may raise; and that the plea of the limited nature of our cognition, which is unavoidable and proper in many questions regarding natural phenomena, cannot in this case be admitted, because the questions raised do not relate to the nature of things, but are necessarily originated by the nature of reason itself, and relate to its own internal constitution. We can now establish this assertion, which at first sight appeared so rash, in relation to the two questions in which reason takes the greatest interest, and thus complete our discussion of the dialectic of pure reason.

If, then, the question is asked, in relation to transcendental theology,* first, whether there is anything distinct from the world, which contains the ground of cosmical order and connection according to general laws? The answer is: Certainly. For the world is a sum of

phenomena; there must, therefore, be some transcendental basis of these phenomena, that is, a basis cogitable by the pure understanding alone. If, secondly, the question is asked whether this being is substance, whether it is of the greatest reality, whether it is necessary, and so forth? I answer that this question is utterly without meaning. For all the categories which aid me in forming a conception of an object cannot be employed except in the world of sense, and are without meaning when not applied to objects of actual or possible experience. Out of this sphere, they are not properly conceptions, but the mere marks or indices of conceptions, which we may admit, although they cannot, without the help of experience, help us to understand any subject or thing. If, thirdly, the question is whether we may not cogitate this being, which is distinct from the world, in analogy with the objects of experience? The answer is: Undoubtedly, but only as an ideal, and not as a real object. That is, we must cogitate it only as an unknown substratum of the systematic unity, order, and finality of the world- a unity which reason must employ as the regulative principle of its investigation of nature. Nay, more, we may admit into the idea certain anthropomorphic elements, which are promotive of the interests of this regulative principle. For it is no more than an idea, which does not relate directly to a being distinct from the world, but to the regulative principle of the systematic unity of the world, by means, however, of a schema of this unity- the schema of a Supreme Intelligence, who is the wisely-designing author of the universe. What this basis of cosmical unity may be in itself, we know not- we cannot discover from the idea; we merely know how we ought to employ the idea of this unity, in relation to the systematic operation of reason in the sphere of experience.

*After what has been said of the psychological idea of the ego and its proper employment as a regulative principle of the operations of reason, I need not enter into details regarding the transcendental illusion by which the systematic unity of all the various phenomena of the internal sense is hypostatized. The procedure is in this case very similar to that which has been discussed in our remarks on the theological ideal.

But, it will be asked again, can we on these grounds, admit the existence of a wise and omnipotent author of the world? Without doubt; and not only so, but we must assume the existence of such a being. But do we thus extend the limits of our knowledge beyond the field of possible experience? By no means. For we have merely presupposed a something, of which we have no conception, which we do not know as it is in itself; but, in relation to the systematic disposition of the universe, which we must presuppose in all our observation of nature, we have cogitated this unknown being in analogy with an intelligent existence (an empirical conception), that is to say, we have endowed it with those attributes, which, judging from the nature of our own reason, may contain the ground of such a systematic unity. This idea is therefore valid only relatively to the employment in experience of our reason. But if we attribute to it absolute and objective validity, we overlook the fact that it is merely an ideal being that we cogitate; and, by setting out from a basis which is not determinable by considerations drawn from experience, we place ourselves in a position which incapacitates us from applying this principle to the empirical employment of reason.

But, it will be asked further, can I make any use of this conception and hypothesis in my investigations into the world and nature? Yes, for this very purpose was the idea established by reason as a

fundamental basis. But may I regard certain arrangements, which seemed to have been made in conformity with some fixed aim, as the arrangements of design, and look upon them as proceeding from the divine will, with the intervention, however, of certain other particular arrangements disposed to that end? Yes, you may do so; but at the same time you must regard it as indifferent, whether it is asserted that divine wisdom has disposed all things in conformity with his highest aims, or that the idea of supreme wisdom is a regulative principle in the investigation of nature, and at the same time a principle of the systematic unity of nature according to general laws, even in those cases where we are unable to discover that unity. In other words, it must be perfectly indifferent to you whether you say, when you have discovered this unity: God has wisely willed it so; or: Nature has wisely arranged this. For it was nothing but the systematic unity, which reason requires as a basis for the investigation of nature, that justified you in accepting the idea of a supreme intelligence as a schema for a regulative principle; and, the farther you advance in the discovery of design and finality, the more certain the validity of your idea. But, as the whole aim of this regulative principle was the discovery of a necessary and systematic unity in nature, we have, in so far as we attain this, to attribute our success to the idea of a Supreme Being; while, at the same time, we cannot, without involving ourselves in contradictions, overlook the general laws of nature, as it was in reference to them alone that this idea was employed. We cannot, I say, overlook the general laws of nature, and regard this conformity to aims observable in nature as contingent or hyperphysical in its origin; inasmuch as there is no ground which can justify us in the admission of a being with such properties distinct from and above nature. All that we are authorized to assert is that this idea may be employed as a principle, and that the properties of the being which is assumed to correspond to it may be regarded as systematically connected in analogy with the causal determination of phenomena.

For the same reasons we are justified in introducing into the idea of the supreme cause other anthropomorphic elements (for without these we could not predicate anything of it); we may regard it as allowable to cogitate this cause as a being with understanding, the feelings of pleasure and displeasure, and faculties of desire and will corresponding to these. At the same time, we may attribute to this being infinite perfection- a perfection which necessarily transcends that which our knowledge of the order and design in the world authorize us to predicate of it. For the regulative law of systematic unity requires us to study nature on the supposition that systematic and final unity in infinitum is everywhere discoverable, even in the highest diversity. For, although we may discover little of this cosmical perfection, it belongs to the legislative prerogative of reason to require us always to seek for and to expect it; while it must always be beneficial to institute all inquiries into nature in accordance with this principle. But it is evident that, by this idea of a supreme author of all, which I place as the foundation of all inquiries into nature, I do not mean to assert the existence of such a being, or that I have any knowledge of its existence; and, consequently, I do not really deduce anything from the existence of this being, but merely from its idea, that is to say, from the nature of things in this world, in accordance with this idea. A certain dim consciousness of the true use of this idea seems to have dictated to the philosophers of all times the moderate language used by them regarding the cause of the world. We find them employing the expressions wisdom and care of nature, and divine wisdom, as synonymous- nay, in purely speculative discussions, preferring the

former, because it does not carry the appearance of greater pretensions than such as we are entitled to make, and at the same time directs reason to its proper field of action- nature and her phenomena.

Thus, pure reason, which at first seemed to promise us nothing less than the extension of our cognition beyond the limits of experience, is found, when thoroughly examined, to contain nothing but regulative principles, the virtue and function of which is to introduce into our cognition a higher degree of unity than the understanding could of itself. These principles, by placing the goal of all our struggles at so great a distance, realize for us the most thorough connection between the different parts of our cognition, and the highest degree of systematic unity. But, on the other hand, if misunderstood and employed as constitutive principles of transcendent cognition, they become the parents of illusions and contradictions, while pretending to introduce us to new regions of knowledge.

Thus all human cognition begins with intuitions, proceeds from thence to conceptions, and ends with ideas. Although it possesses, in relation to all three elements, a priori sources of cognition, which seemed to transcend the limits of all experience, a thoroughgoing criticism demonstrates that speculative reason can never, by the aid of these elements, pass the bounds of possible experience, and that the proper destination of this highest faculty of cognition is to employ all methods, and all the principles of these methods, for the purpose of penetrating into the innermost secrets of nature, by the aid of the principles of unity (among all kinds of which teleological unity is the highest), while it ought not to attempt to soar above the sphere of experience, beyond which there lies nought for us but the void inane. The critical examination, in our Transcendental Analytic, of all the propositions which professed to extend cognition beyond the sphere of experience, completely demonstrated that they can only conduct us to a possible experience. If we were not distrustful even of the clearest abstract theorems, if we were not allured by specious and inviting prospects to escape from the constraining power of their evidence, we might spare ourselves the laborious examination of all the dialectical arguments which a transcendent reason adduces in support of its pretensions; for we should know with the most complete certainty that, however honest such professions might be, they are null and valueless, because they relate to a kind of knowledge to which no man can by any possibility attain. But, as there is no end to discussion, if we cannot discover the true cause of the illusions by which even the wisest are deceived, and as the analysis of all our transcendent cognition into its elements is of itself of no slight value as a psychological study, while it is a duty incumbent on every philosopher- it was found necessary to investigate the dialectical procedure of reason in its primary sources. And as the inferences of which this dialectic is the parent are not only deceitful, but naturally possess a profound interest for humanity, it was advisable at the same time, to give a full account of the momenta of this dialectical procedure, and to deposit it in the archives of human reason, as a warning to all future metaphysicians to avoid these causes of speculative error.

METHOD

II.

TRANSCENDENTAL DOCTRINE OF METHOD.

If we regard the sum of the cognition of pure speculative reason

as an edifice, the idea of which, at least, exists in the human mind, it may be said that we have in the Transcendental Doctrine of Elements examined the materials and determined to what edifice these belong, and what its height and stability. We have found, indeed, that, although we had purposed to build for ourselves a tower which should reach to Heaven, the supply of materials sufficed merely for a habitation, which was spacious enough for all terrestrial purposes, and high enough to enable us to survey the level plain of experience, but that the bold undertaking designed necessarily failed for want of materials- not to mention the confusion of tongues, which gave rise to endless disputes among the labourers on the plan of the edifice, and at last scattered them over all the world, each to erect a separate building for himself, according to his own plans and his own inclinations. Our present task relates not to the materials, but to the plan of an edifice; and, as we have had sufficient warning not to venture blindly upon a design which may be found to transcend our natural powers, while, at the same time, we cannot give up the intention of erecting a secure abode for the mind, we must proportion our design to the material which is presented to us, and which is, at the same time, sufficient for all our wants.

I understand, then, by the transcendental doctrine of method, the determination of the formal conditions of a complete system of pure reason. We shall accordingly have to treat of the discipline, the canon, the architectonic, and, finally, the history of pure reason. This part of our Critique will accomplish, from the transcendental point of view, what has been usually attempted, but miserably executed, under the name of practical logic. It has been badly executed, I say, because general logic, not being limited to any particular kind of cognition (not even to the pure cognition of the understanding) nor to any particular objects, it cannot, without borrowing from other sciences, do more than present merely the titles or signs of possible methods and the technical expressions, which are employed in the systematic parts of all sciences; and thus the pupil is made acquainted with names, the meaning and application of which he is to learn only at some future time.

CHAPTER I. The Discipline of Pure Reason.

Negative judgements- those which are so not merely as regards their logical form, but in respect of their content- are not commonly held in especial respect. They are, on the contrary, regarded as jealous enemies of our insatiable desire for knowledge; and it almost requires an apology to induce us to tolerate, much less to prize and to respect them.

All propositions, indeed, may be logically expressed in a negative form; but, in relation to the content of our cognition, the peculiar province of negative judgements is solely to prevent error. For this reason, too, negative propositions, which are framed for the purpose of correcting false cognitions where error is absolutely impossible, are undoubtedly true, but inane and senseless; that is, they are in reality purposeless and, for this reason, often very ridiculous. Such is the proposition of the schoolman that Alexander could not have subdued any countries without an army.

But where the limits of our possible cognition are very much contracted, the attraction to new fields of knowledge great, the illusions to which the mind is subject of the most deceptive character, and the evil consequences of error of no inconsiderable magnitude- the negative element in knowledge, which is useful only to guard us against error, is of far more importance than much of that positive instruction which makes additions to the sum of our knowledge. The restraint which is employed to repress, and finally

to extirpate the constant inclination to depart from certain rules, is termed discipline. It is distinguished from culture, which aims at the formation of a certain degree of skill, without attempting to repress or to destroy any other mental power, already existing. In the cultivation of a talent, which has given evidence of an impulse towards self-development, discipline takes a negative,* culture and doctrine a positive, part.

*I am well aware that, in the language of the schools, the term discipline is usually employed as synonymous with instruction. But there are so many cases in which it is necessary to distinguish the notion of the former, as a course of corrective training, from that of the latter, as the communication of knowledge, and the nature of things itself demands the appropriation of the most suitable expressions for this distinction, that it is my desire that the former terms should never be employed in any other than a negative signification.

That natural dispositions and talents (such as imagination and with, which ask a free and unlimited development, require in many respects the corrective influence of discipline, every one will readily grant. But it may well appear strange that reason, whose proper duty it is to prescribe rules of discipline to all the other powers of the mind, should itself require this corrective. It has, in fact, hitherto escaped this humiliation, only because, in presence of its magnificent pretensions and high position, no one could readily suspect it to be capable of substituting fancies for conceptions, and words for things.

Reason, when employed in the field of experience, does not stand in need of criticism, because its principles are subjected to the continual test of empirical observations. Nor is criticism requisite in the sphere of mathematics, where the conceptions of reason must always be presented in concreto in pure intuition, and baseless or arbitrary assertions are discovered without difficulty. But where reason is not held in a plain track by the influence of empirical or of pure intuition, that is, when it is employed in the transcendental sphere of pure conceptions, it stands in great need of discipline, to restrain its propensity to overstep the limits of possible experience and to keep it from wandering into error. In fact, the utility of the philosophy of pure reason is entirely of this negative character. Particular errors may be corrected by particular animadversions, and the causes of these errors may be eradicated by criticism. But where we find, as in the case of pure reason, a complete system of illusions and fallacies, closely connected with each other and depending upon grand general principles, there seems to be required a peculiar and negative code of mental legislation, which, under the denomination of a discipline, and founded upon the nature of reason and the objects of its exercise, shall constitute a system of thorough examination and testing, which no fallacy will be able to withstand or escape from, under whatever disguise or concealment it may lurk.

But the reader must remark that, in this the second division of our transcendental Critique the discipline of pure reason is not directed to the content, but to the method of the cognition of pure reason. The former task has been completed in the doctrine of elements. But there is so much similarity in the mode of employing the faculty of reason, whatever be the object to which it is applied, while, at the same time, its employment in the transcendental sphere is so essentially different in kind from every other, that, without the warning negative influence of a discipline specially directed to

that end, the errors are unavoidable which spring from the unskillful employment of the methods which are originated by reason but which are out of place in this sphere.

SECTION I. The Discipline of Pure Reason in the Sphere of Dogmatism.

The science of mathematics presents the most brilliant example of the extension of the sphere of pure reason without the aid of experience. Examples are always contagious; and they exert an especial influence on the same faculty, which naturally flatters itself that it will have the same good fortune in other case as fell to its lot in one fortunate instance. Hence pure reason hopes to be able to extend its empire in the transcendental sphere with equal success and security, especially when it applies the same method which was attended with such brilliant results in the science of mathematics. It is, therefore, of the highest importance for us to know whether the method of arriving at demonstrative certainty, which is termed mathematical, be identical with that by which we endeavour to attain the same degree of certainty in philosophy, and which is termed in that science dogmatical.

Philosophical cognition is the cognition of reason by means of conceptions; mathematical cognition is cognition by means of the construction of conceptions. The construction of a conception is the presentation a priori of the intuition which corresponds to the conception. For this purpose a non-empirical intuition is requisite, which, as an intuition, is an individual object; while, as the construction of a conception (a general representation), it must be seen to be universally valid for all the possible intuitions which rank under that conception. Thus I construct a triangle, by the presentation of the object which corresponds to this conception, either by mere imagination, in pure intuition, or upon paper, in empirical intuition, in both cases completely a priori, without borrowing the type of that figure from any experience. The individual figure drawn upon paper is empirical; but it serves, notwithstanding, to indicate the conception, even in its universality, because in this empirical intuition we keep our eye merely on the act of the construction of the conception, and pay no attention to the various modes of determining it, for example, its size, the length of its sides, the size of its angles, these not in the least affecting the essential character of the conception.

Philosophical cognition, accordingly, regards the particular only in the general; mathematical the general in the particular, nay, in the individual. This is done, however, entirely a priori and by means of pure reason, so that, as this individual figure is determined under certain universal conditions of construction, the object of the conception, to which this individual figure corresponds as its schema, must be cogitated as universally determined.

The essential difference of these two modes of cognition consists, therefore, in this formal quality; it does not regard the difference of the matter or objects of both. Those thinkers who aim at distinguishing philosophy from mathematics by asserting that the former has to do with quality merely, and the latter with quantity, have mistaken the effect for the cause. The reason why mathematical cognition can relate only to quantity is to be found in its form alone. For it is the conception of quantities only that is capable of being constructed, that is, presented a priori in intuition; while qualities cannot be given in any other than an empirical intuition. Hence the cognition of qualities by reason is possible only through conceptions. No one can find an intuition which shall

correspond to the conception of reality, except in experience; it cannot be presented to the mind a priori and antecedently to the empirical consciousness of a reality. We can form an intuition, by means of the mere conception of it, of a cone, without the aid of experience; but the colour of the cone we cannot know except from experience. I cannot present an intuition of a cause, except in an example which experience offers to me. Besides, philosophy, as well as mathematics, treats of quantities; as, for example, of totality, infinity, and so on. Mathematics, too, treats of the difference of lines and surfaces- as spaces of different quality, of the continuity of extension- as a quality thereof. But, although in such cases they have a common object, the mode in which reason considers that object is very different in philosophy from what it is in mathematics. The former confines itself to the general conceptions; the latter can do nothing with a mere conception, it hastens to intuition. In this intuition it regards the conception in concreto, not empirically, but in an a priori intuition, which it has constructed; and in which, all the results which follow from the general conditions of the construction of the conception are in all cases valid for the object of the constructed conception.

Suppose that the conception of a triangle is given to a philosopher and that he is required to discover, by the philosophical method, what relation the sum of its angles bears to a right angle. He has nothing before him but the conception of a figure enclosed within three right lines, and, consequently, with the same number of angles. He may analyse the conception of a right line, of an angle, or of the number three as long as he pleases, but he will not discover any properties not contained in these conceptions. But, if this question is proposed to a geometrician, he at once begins by constructing a triangle. He knows that two right angles are equal to the sum of all the contiguous angles which proceed from one point in a straight line; and he goes on to produce one side of his triangle, thus forming two adjacent angles which are together equal to two right angles. He then divides the exterior of these angles, by drawing a line parallel with the opposite side of the triangle, and immediately perceives that he has thus got an exterior adjacent angle which is equal to the interior. Proceeding in this way, through a chain of inferences, and always on the ground of intuition, he arrives at a clear and universally valid solution of the question.

But mathematics does not confine itself to the construction of quantities (*quanta*), as in the case of geometry; it occupies itself with pure quantity also (*quantitas*), as in the case of algebra, where complete abstraction is made of the properties of the object indicated by the conception of quantity. In algebra, a certain method of notation by signs is adopted, and these indicate the different possible constructions of quantities, the extraction of roots, and so on. After having thus denoted the general conception of quantities, according to their different relations, the different operations by which quantity or number is increased or diminished are presented in intuition in accordance with general rules. Thus, when one quantity is to be divided by another, the signs which denote both are placed in the form peculiar to the operation of division; and thus algebra, by means of a symbolical construction of quantity, just as geometry, with its ostensive or geometrical construction (a construction of the objects themselves), arrives at results which discursive cognition cannot hope to reach by the aid of mere conceptions.

Now, what is the cause of this difference in the fortune of the philosopher and the mathematician, the former of whom follows the path

of conceptions, while the latter pursues that of intuitions, which he represents, a priori, in correspondence with his conceptions? The cause is evident from what has been already demonstrated in the introduction to this Critique. We do not, in the present case, want to discover analytical propositions, which may be produced merely by analysing our conceptions- for in this the philosopher would have the advantage over his rival; we aim at the discovery of synthetical propositions- such synthetical propositions, moreover, as can be cognized a priori. I must not confine myself to that which I actually cogitate in my conception of a triangle, for this is nothing more than the mere definition; I must try to go beyond that, and to arrive at properties which are not contained in, although they belong to, the conception. Now, this is impossible, unless I determine the object present to my mind according to the conditions, either of empirical, or of pure, intuition. In the former case, I should have an empirical proposition (arrived at by actual measurement of the angles of the triangle), which would possess neither universality nor necessity; but that would be of no value. In the latter, I proceed by geometrical construction, by means of which I collect, in a pure intuition, just as I would in an empirical intuition, all the various properties which belong to the schema of a triangle in general, and consequently to its conception, and thus construct synthetical propositions which possess the attribute of universality.

It would be vain to philosophize upon the triangle, that is, to reflect on it discursively; I should get no further than the definition with which I had been obliged to set out. There are certainly transcendental synthetical propositions which are framed by means of pure conceptions, and which form the peculiar distinction of philosophy; but these do not relate to any particular thing, but to a thing in general, and enounce the conditions under which the perception of it may become a part of possible experience. But the science of mathematics has nothing to do with such questions, nor with the question of existence in any fashion; it is concerned merely with the properties of objects in themselves, only in so far as these are connected with the conception of the objects.

In the above example, we merely attempted to show the great difference which exists between the discursive employment of reason in the sphere of conceptions, and its intuitive exercise by means of the construction of conceptions. The question naturally arises: What is the cause which necessitates this twofold exercise of reason, and how are we to discover whether it is the philosophical or the mathematical method which reason is pursuing in an argument?

All our knowledge relates, finally, to possible intuitions, for it is these alone that present objects to the mind. An a priori or non-empirical conception contains either a pure intuition- and in this case it can be constructed; or it contains nothing but the synthesis of possible intuitions, which are not given a priori. In this latter case, it may help us to form synthetical a priori judgements, but only in the discursive method, by conceptions, not in the intuitive, by means of the construction of conceptions.

The only a priori intuition is that of the pure form of phenomena- space and time. A conception of space and time as quanta may be presented a priori in intuition, that is, constructed, either alone with their quality (figure), or as pure quantity (the mere synthesis of the homogeneous), by means of number. But the matter of phenomena, by which things are given in space and time, can be presented only in perception, a posteriori. The only conception which represents a priori this empirical content of phenomena is the conception of a thing in general; and the a priori synthetical

cognition of this conception can give us nothing more than the rule for the synthesis of that which may be contained in the corresponding a posteriori perception; it is utterly inadequate to present an a priori intuition of the real object, which must necessarily be empirical.

Synthetical propositions, which relate to things in general, an a priori intuition of which is impossible, are transcendental. For this reason transcendental propositions cannot be framed by means of the construction of conceptions; they are a priori, and based entirely on conceptions themselves. They contain merely the rule, by which we are to seek in the world of perception or experience the synthetical unity of that which cannot be intuited a priori. But they are incompetent to present any of the conceptions which appear in them in an a priori intuition; these can be given only a posteriori, in experience, which, however, is itself possible only through these synthetical principles.

If we are to form a synthetical judgement regarding a conception, we must go beyond it, to the intuition in which it is given. If we keep to what is contained in the conception, the judgement is merely analytical- it is merely an explanation of what we have cogitated in the conception. But I can pass from the conception to the pure or empirical intuition which corresponds to it. I can proceed to examine my conception in concreto, and to cognize, either a priori or a posteriori, what I find in the object of the conception. The former- a priori cognition- is rational-mathematical cognition by means of the construction of the conception; the latter- a posteriori cognition- is purely empirical cognition, which does not possess the attributes of necessity and universality. Thus I may analyse the conception I have of gold; but I gain no new information from this analysis, I merely enumerate the different properties which I had connected with the notion indicated by the word. My knowledge has gained in logical clearness and arrangement, but no addition has been made to it. But if I take the matter which is indicated by this name, and submit it to the examination of my senses, I am enabled to form several synthetical- although still empirical- propositions. The mathematical conception of a triangle I should construct, that is, present a priori in intuition, and in this way attain to rational-synthetical cognition. But when the transcendental conception of reality, or substance, or power is presented to my mind, I find that it does not relate to or indicate either an empirical or pure intuition, but that it indicates merely the synthesis of empirical intuitions, which cannot of course be given a priori. The synthesis in such a conception cannot proceed a priori- without the aid of experience- to the intuition which corresponds to the conception; and, for this reason, none of these conceptions can produce a determinative synthetical proposition, they can never present more than a principle of the synthesis* of possible empirical intuitions. A transcendental proposition is, therefore, a synthetical cognition of reason by means of pure conceptions and the discursive method, and it renders possible all synthetical unity in empirical cognition, though it cannot present us with any intuition a priori.

*In the case of the conception of cause, I do really go beyond the empirical conception of an event- but not to the intuition which presents this conception in concreto, but only to the time-conditions, which may be found in experience to correspond to the conception. My procedure is, therefore, strictly according to conceptions; I cannot in a case of this kind employ the construction of conceptions, because the conception is merely a rule for the synthesis of perceptions,

which are not pure intuitions, and which, therefore, cannot be given a priori.

There is thus a twofold exercise of reason. Both modes have the properties of universality and an a priori origin in common, but are, in their procedure, of widely different character. The reason of this is that in the world of phenomena, in which alone objects are presented to our minds, there are two main elements- the form of intuition (space and time), which can be cognized and determined completely a priori, and the matter or content- that which is presented in space and time, and which, consequently, contains a something- an existence corresponding to our powers of sensation. As regards the latter, which can never be given in a determinate mode except by experience, there are no a priori notions which relate to it, except the undetermined conceptions of the synthesis of possible sensations, in so far as these belong (in a possible experience) to the unity of consciousness. As regards the former, we can determine our conceptions a priori in intuition, inasmuch as we are ourselves the creators of the objects of the conceptions in space and time- these objects being regarded simply as quanta. In the one case, reason proceeds according to conceptions and can do nothing more than subject phenomena to these- which can only be determined empirically, that is, a posteriori- in conformity, however, with those conceptions as the rules of all empirical synthesis. In the other case, reason proceeds by the construction of conceptions; and, as these conceptions relate to an a priori intuition, they may be given and determined in pure intuition a priori, and without the aid of empirical data. The examination and consideration of everything that exists in space or time- whether it is a quantum or not, in how far the particular something (which fills space or time) is a primary substratum, or a mere determination of some other existence, whether it relates to anything else- either as cause or effect, whether its existence is isolated or in reciprocal connection with and dependence upon others, the possibility of this existence, its reality and necessity or opposites- all these form part of the cognition of reason on the ground of conceptions, and this cognition is termed philosophical. But to determine a priori an intuition in space (its figure), to divide time into periods, or merely to cognize the quantity of an intuition in space and time, and to determine it by number- all this is an operation of reason by means of the construction of conceptions, and is called mathematical.

The success which attends the efforts of reason in the sphere of mathematics naturally fosters the expectation that the same good fortune will be its lot, if it applies the mathematical method in other regions of mental endeavour besides that of quantities. Its success is thus great, because it can support all its conceptions by a priori intuitions and, in this way, make itself a master, as it were, over nature; while pure philosophy, with its a priori discursive conceptions, bungles about in the world of nature, and cannot accredit or show any a priori evidence of the reality of these conceptions. Masters in the science of mathematics are confident of the success of this method; indeed, it is a common persuasion that it is capable of being applied to any subject of human thought. They have hardly ever reflected or philosophized on their favourite science- a task of great difficulty; and the specific difference between the two modes of employing the faculty of reason has never entered their thoughts. Rules current in the field of common experience, and which common sense stamps everywhere with its approval, are regarded by them as axiomatic. From what source the conceptions of space and time, with which (as the only primitive quanta) they have to deal, enter their

minds, is a question which they do not trouble themselves to answer; and they think it just as unnecessary to examine into the origin of the pure conceptions of the understanding and the extent of their validity. All they have to do with them is to employ them. In all this they are perfectly right, if they do not overstep the limits of the sphere of nature. But they pass, unconsciously, from the world of sense to the insecure ground of pure transcendental conceptions (*instabilis tellus, innabilis unda*), where they can neither stand nor swim, and where the tracks of their footsteps are obliterated by time; while the march of mathematics is pursued on a broad and magnificent highway, which the latest posterity shall frequent without fear of danger or impediment.

As we have taken upon us the task of determining, clearly and certainly, the limits of pure reason in the sphere of transcendentalism, and as the efforts of reason in this direction are persisted in, even after the plainest and most expressive warnings, hope still beckoning us past the limits of experience into the splendours of the intellectual world- it becomes necessary to cut away the last anchor of this fallacious and fantastic hope. We shall, accordingly, show that the mathematical method is unattended in the sphere of philosophy by the least advantage- except, perhaps, that it more plainly exhibits its own inadequacy- that geometry and philosophy are two quite different things, although they go hand in hand in the field of natural science, and, consequently, that the procedure of the one can never be imitated by the other.

The evidence of mathematics rests upon definitions, axioms, and demonstrations. I shall be satisfied with showing that none of these forms can be employed or imitated in philosophy in the sense in which they are understood by mathematicians; and that the geometrician, if he employs his method in philosophy, will succeed only in building card-castles, while the employment of the philosophical method in mathematics can result in nothing but mere verbiage. The essential business of philosophy, indeed, is to mark out the limits of the science; and even the mathematician, unless his talent is naturally circumscribed and limited to this particular department of knowledge, cannot turn a deaf ear to the warnings of philosophy, or set himself above its direction.

I. Of Definitions. A definition is, as the term itself indicates, the representation, upon primary grounds, of the complete conception of a thing within its own limits.* Accordingly, an empirical conception cannot be defined, it can only be explained. For, as there are in such a conception only a certain number of marks or signs, which denote a certain class of sensuous objects, we can never be sure that we do not cogitate under the word which indicates the same object, at one time a greater, at another a smaller number of signs. Thus, one person may cogitate in his conception of gold, in addition to its properties of weight, colour, malleability, that of resisting rust, while another person may be ignorant of this quality. We employ certain signs only so long as we require them for the sake of distinction; new observations abstract some and add new ones, so that an empirical conception never remains within permanent limits. It is, in fact, useless to define a conception of this kind. If, for example, we are speaking of water and its properties, we do not stop at what we actually think by the word water, but proceed to observation and experiment; and the word, with the few signs attached to it, is more properly a designation than a conception of the thing. A definition in this case would evidently be nothing more than a determination of the word. In the second place, no a priori conception, such as those of substance, cause, right, fitness, and so on, can be defined. For I can never be sure, that the clear

representation of a given conception (which is given in a confused state) has been fully developed, until I know that the representation is adequate with its object. But, inasmuch as the conception, as it is presented to the mind, may contain a number of obscure representations, which we do not observe in our analysis, although we employ them in our application of the conception, I can never be sure that my analysis is complete, while examples may make this probable, although they can never demonstrate the fact. instead of the word definition, I should rather employ the term exposition- a more modest expression, which the critic may accept without surrendering his doubts as to the completeness of the analysis of any such conception. As, therefore, neither empirical nor a priori conceptions are capable of definition, we have to see whether the only other kind of conceptions- arbitrary conceptions- can be subjected to this mental operation. Such a conception can always be defined; for I must know thoroughly what I wished to cogitate in it, as it was I who created it, and it was not given to my mind either by the nature of my understanding or by experience. At the same time, I cannot say that, by such a definition, I have defined a real object. If the conception is based upon empirical conditions, if, for example, I have a conception of a clock for a ship, this arbitrary conception does not assure me of the existence or even of the possibility of the object. My definition of such a conception would with more propriety be termed a declaration of a project than a definition of an object. There are no other conceptions which can bear definition, except those which contain an arbitrary synthesis, which can be constructed a priori. Consequently, the science of mathematics alone possesses definitions. For the object here thought is presented a priori in intuition; and thus it can never contain more or less than the conception, because the conception of the object has been given by the definition- and primarily, that is, without deriving the definition from any other source. Philosophical definitions are, therefore, merely expositions of given conceptions, while mathematical definitions are constructions of conceptions originally formed by the mind itself; the former are produced by analysis, the completeness of which is never demonstratively certain, the latter by a synthesis. In a mathematical definition the conception is formed, in a philosophical definition it is only explained. From this it follows:

*The definition must describe the conception completely that is, omit none of the marks or signs of which it composed; within its own limits, that is, it must be precise, and enumerate no more signs than belong to the conception; and on primary grounds, that is to say, the limitations of the bounds of the conception must not be deduced from other conceptions, as in this case a proof would be necessary, and the so-called definition would be incapable of taking its place at the head of all the judgements we have to form regarding an object.

(a) That we must not imitate, in philosophy, the mathematical usage of commencing with definitions- except by way of hypothesis or experiment. For, as all so-called philosophical definitions are merely analyses of given conceptions, these conceptions, although only in a confused form, must precede the analysis; and the incomplete exposition must precede the complete, so that we may be able to draw certain inferences from the characteristics which an incomplete analysis has enabled us to discover, before we attain to the complete exposition or definition of the conception. In one word, a full and clear definition ought, in philosophy, rather to form the conclusion than the commencement of our labours.* In mathematics, on the contrary, we cannot have a conception prior to the definition;

it is the definition which gives us the conception, and it must for this reason form the commencement of every chain of mathematical reasoning.

*Philosophy abounds in faulty definitions, especially such as contain some of the elements requisite to form a complete definition. If a conception could not be employed in reasoning before it had been defined, it would fare ill with all philosophical thought. But, as incompletely defined conceptions may always be employed without detriment to truth, so far as our analysis of the elements contained in them proceeds, imperfect definitions, that is, propositions which are properly not definitions, but merely approximations thereto, may be used with great advantage. In mathematics, definition belongs *ad esse*, in philosophy *ad melius esse*. It is a difficult task to construct a proper definition. Jurists are still without a complete definition of the idea of right.

(b) Mathematical definitions cannot be erroneous. For the conception is given only in and through the definition, and thus it contains only what has been cogitated in the definition. But although a definition cannot be incorrect, as regards its content, an error may sometimes, although seldom, creep into the form. This error consists in a want of precision. Thus the common definition of a circle- that it is a curved line, every point in which is equally distant from another point called the centre- is faulty, from the fact that the determination indicated by the word curved is superfluous. For there ought to be a particular theorem, which may be easily proved from the definition, to the effect that every line, which has all its points at equal distances from another point, must be a curved line- that is, that not even the smallest part of it can be straight. Analytical definitions, on the other hand, may be erroneous in many respects, either by the introduction of signs which do not actually exist in the conception, or by wanting in that completeness which forms the essential of a definition. In the latter case, the definition is necessarily defective, because we can never be fully certain of the completeness of our analysis. For these reasons, the method of definition employed in mathematics cannot be imitated in philosophy.

2. Of Axioms. These, in so far as they are immediately certain, are a priori synthetical principles. Now, one conception cannot be connected synthetically and yet immediately with another; because, if we wish to proceed out of and beyond a conception, a third mediating cognition is necessary. And, as philosophy is a cognition of reason by the aid of conceptions alone, there is to be found in it no principle which deserves to be called an axiom. Mathematics, on the other hand, may possess axioms, because it can always connect the predicates of an object a priori, and without any mediating term, by means of the construction of conceptions in intuition. Such is the case with the proposition: Three points can always lie in a plane. On the other hand, no synthetical principle which is based upon conceptions, can ever be immediately certain (for example, the proposition: Everything that happens has a cause), because I require a mediating term to connect the two conceptions of event and cause- namely, the condition of time-determination in an experience, and I cannot cognize any such principle immediately and from conceptions alone. Discursive principles are, accordingly, very different from intuitive principles or axioms. The former always require deduction, which in the case of the latter may be altogether dispensed with. Axioms are, for this reason, always self-evident, while philosophical principles, whatever may be the degree of certainty they possess, cannot lay any claim to such a distinction. No synthetical

proposition of pure transcendental reason can be so evident, as is often rashly enough declared, as the statement, twice two are four. It is true that in the Analytic I introduced into the list of principles of the pure understanding, certain axioms of intuition; but the principle there discussed was not itself an axiom, but served merely to present the principle of the possibility of axioms in general, while it was really nothing more than a principle based upon conceptions. For it is one part of the duty of transcendental philosophy to establish the possibility of mathematics itself. Philosophy possesses, then, no axioms, and has no right to impose its a priori principles upon thought, until it has established their authority and validity by a thoroughgoing deduction.

3. Of Demonstrations. Only an apodeictic proof, based upon intuition, can be termed a demonstration. Experience teaches us what is, but it cannot convince us that it might not have been otherwise. Hence a proof upon empirical grounds cannot be apodeictic. A priori conceptions, in discursive cognition, can never produce intuitive certainty or evidence, however certain the judgement they present may be. Mathematics alone, therefore, contains demonstrations, because it does not deduce its cognition from conceptions, but from the construction of conceptions, that is, from intuition, which can be given a priori in accordance with conceptions. The method of algebra, in equations, from which the correct answer is deduced by reduction, is a kind of construction- not geometrical, but by symbols- in which all conceptions, especially those of the relations of quantities, are represented in intuition by signs; and thus the conclusions in that science are secured from errors by the fact that every proof is submitted to ocular evidence. Philosophical cognition does not possess this advantage, it being required to consider the general always in abstracto (by means of conceptions), while mathematics can always consider it in concreto (in an individual intuition), and at the same time by means of a priori representation, whereby all errors are rendered manifest to the senses. The former- discursive proofs- ought to be termed acroamatic proofs, rather than demonstrations, as only words are employed in them, while demonstrations proper, as the term itself indicates, always require a reference to the intuition of the object.

It follows from all these considerations that it is not consonant with the nature of philosophy, especially in the sphere of pure reason, to employ the dogmatical method, and to adorn itself with the titles and insignia of mathematical science. It does not belong to that order, and can only hope for a fraternal union with that science. Its attempts at mathematical evidence are vain pretensions, which can only keep it back from its true aim, which is to detect the illusory procedure of reason when transgressing its proper limits, and by fully explaining and analysing our conceptions, to conduct us from the dim regions of speculation to the clear region of modest self-knowledge. Reason must not, therefore, in its transcendental endeavours, look forward with such confidence, as if the path it is pursuing led straight to its aim, nor reckon with such security upon its premisses, as to consider it unnecessary to take a step back, or to keep a strict watch for errors, which, overlooked in the principles, may be detected in the arguments themselves- in which case it may be requisite either to determine these principles with greater strictness, or to change them entirely.

I divide all apodeictic propositions, whether demonstrable or immediately certain, into dogmata and mathemata. A direct synthetical proposition, based on conceptions, is a dogma; a proposition of the same kind, based on the construction of conceptions, is a mathema. Analytical judgements do not teach us any

more about an object than what was contained in the conception we had of it; because they do not extend our cognition beyond our conception of an object, they merely elucidate the conception. They cannot therefore be with propriety termed dogmas. Of the two kinds of a priori synthetical propositions above mentioned, only those which are employed in philosophy can, according to the general mode of speech, bear this name; those of arithmetic or geometry would not be rightly so denominated. Thus the customary mode of speaking confirms the explanation given above, and the conclusion arrived at, that only those judgements which are based upon conceptions, not on the construction of conceptions, can be termed dogmatical.

Thus, pure reason, in the sphere of speculation, does not contain a single direct synthetical judgement based upon conceptions. By means of ideas, it is, as we have shown, incapable of producing synthetical judgements, which are objectively valid; by means of the conceptions of the understanding, it establishes certain indubitable principles, not, however, directly on the basis of conceptions, but only indirectly by means of the relation of these conceptions to something of a purely contingent nature, namely, possible experience. When experience is presupposed, these principles are apodeictically certain, but in themselves, and directly, they cannot even be cognized a priori. Thus the given conceptions of cause and event will not be sufficient for the demonstration of the proposition: Every event has a cause. For this reason, it is not a dogma; although from another point of view, that of experience, it is capable of being proved to demonstration. The proper term for such a proposition is principle, and not theorem (although it does require to be proved), because it possesses the remarkable peculiarity of being the condition of the possibility of its own ground of proof, that is, experience, and of forming a necessary presupposition in all empirical observation.

If then, in the speculative sphere of pure reason, no dogmata are to be found; all dogmatical methods, whether borrowed from mathematics, or invented by philosophical thinkers, are alike inappropriate and inefficient. They only serve to conceal errors and fallacies, and to deceive philosophy, whose duty it is to see that reason pursues a safe and straight path. A philosophical method may, however, be systematical. For our reason is, subjectively considered, itself a system, and, in the sphere of mere conceptions, a system of investigation according to principles of unity, the material being supplied by experience alone. But this is not the proper place for discussing the peculiar method of transcendental philosophy, as our present task is simply to examine whether our faculties are capable of erecting an edifice on the basis of pure reason, and how far they may proceed with the materials at their command.

SECTION II. The Discipline of Pure Reason in Polemics.

Reason must be subject, in all its operations, to criticism, which must always be permitted to exercise its functions without restraint; otherwise its interests are imperilled and its influence obnoxious to suspicion. There is nothing, however useful, however sacred it may be, that can claim exemption from the searching examination of this supreme tribunal, which has no respect of persons. The very existence of reason depends upon this freedom; for the voice of reason is not that of a dictatorial and despotic power, it is rather like the vote of the citizens of a free state, every member of which must have the privilege of giving free expression to his doubts, and possess even the right of veto.

But while reason can never decline to submit itself to the

tribunal of criticism, it has not always cause to dread the judgement of this court. Pure reason, however, when engaged in the sphere of dogmatism, is not so thoroughly conscious of a strict observance of its highest laws, as to appear before a higher judicial reason with perfect confidence. On the contrary, it must renounce its magnificent dogmatical pretensions in philosophy.

Very different is the case when it has to defend itself, not before a judge, but against an equal. If dogmatical assertions are advanced on the negative side, in opposition to those made by reason on the positive side, its justification *kat authrhopon* is complete, although the proof of its propositions is *kat aletheian* unsatisfactory.

By the polemic of pure reason I mean the defence of its propositions made by reason, in opposition to the dogmatical counter-propositions advanced by other parties. The question here is not whether its own statements may not also be false; it merely regards the fact that reason proves that the opposite cannot be established with demonstrative certainty, nor even asserted with a higher degree of probability. Reason does not hold her possessions upon sufferance; for, although she cannot show a perfectly satisfactory title to them, no one can prove that she is not the rightful possessor.

It is a melancholy reflection that reason, in its highest exercise, falls into an antithetic; and that the supreme tribunal for the settlement of differences should not be at union with itself. It is true that we had to discuss the question of an apparent antithetic, but we found that it was based upon a misconception. In conformity with the common prejudice, phenomena were regarded as things in themselves, and thus an absolute completeness in their synthesis was required in the one mode or in the other (it was shown to be impossible in both); a demand entirely out of place in regard to phenomena. There was, then, no real self-contradiction of reason in the propositions: The series of phenomena given in themselves has an absolutely first beginning; and: This series is absolutely and in itself without beginning. The two propositions are perfectly consistent with each other, because phenomena as phenomena are in themselves nothing, and consequently the hypothesis that they are things in themselves must lead to self-contradictory inferences.

But there are cases in which a similar misunderstanding cannot be provided against, and the dispute must remain unsettled. Take, for example, the theistic proposition: There is a Supreme Being; and on the other hand, the atheistic counter-statement: There exists no Supreme Being; or, in psychology: Everything that thinks possesses the attribute of absolute and permanent unity, which is utterly different from the transitory unity of material phenomena; and the counter-proposition: The soul is not an immaterial unity, and its nature is transitory, like that of phenomena. The objects of these questions contain no heterogeneous or contradictory elements, for they relate to things in themselves, and not to phenomena. There would arise, indeed, a real contradiction, if reason came forward with a statement on the negative side of these questions alone. As regards the criticism to which the grounds of proof on the affirmative side must be subjected, it may be freely admitted, without necessitating the surrender of the affirmative propositions, which have, at least, the interest of reason in their favour- an advantage which the opposite party cannot lay claim to.

I cannot agree with the opinion of several admirable thinkers- Sulzer among the rest- that, in spite of the weakness of the arguments hitherto in use, we may hope, one day, to see sufficient demonstrations of the two cardinal propositions of pure reason- the existence of a Supreme Being, and the immortality of the soul. I am

certain, on the contrary, that this will never be the case. For on what ground can reason base such synthetical propositions, which do not relate to the objects of experience and their internal possibility? But it is also demonstratively certain that no one will ever be able to maintain the contrary with the least show of probability. For, as he can attempt such a proof solely upon the basis of pure reason, he is bound to prove that a Supreme Being, and a thinking subject in the character of a pure intelligence, are impossible. But where will he find the knowledge which can enable him to enounce synthetical judgements in regard to things which transcend the region of experience? We may, therefore, rest assured that the opposite never will be demonstrated. We need not, then, have recourse to scholastic arguments; we may always admit the truth of those propositions which are consistent with the speculative interests of reason in the sphere of experience, and form, moreover, the only means of uniting the speculative with the practical interest. Our opponent, who must not be considered here as a critic solely, we can be ready to meet with a non liquet which cannot fail to disconcert him; while we cannot deny his right to a similar retort, as we have on our side the advantage of the support of the subjective maxim of reason, and can therefore look upon all his sophistical arguments with calm indifference.

From this point of view, there is properly no antithetic of pure reason. For the only arena for such a struggle would be upon the field of pure theology and psychology; but on this ground there can appear no combatant whom we need to fear. Ridicule and boasting can be his only weapons; and these may be laughed at, as mere child's play. This consideration restores to Reason her courage; for what source of confidence could be found, if she, whose vocation it is to destroy error, were at variance with herself and without any reasonable hope of ever reaching a state of permanent repose?

Everything in nature is good for some purpose. Even poisons are serviceable; they destroy the evil effects of other poisons generated in our system, and must always find a place in every complete pharmacopoeia. The objections raised against the fallacies and sophistries of speculative reason, are objections given by the nature of this reason itself, and must therefore have a destination and purpose which can only be for the good of humanity. For what purpose has Providence raised many objects, in which we have the deepest interest, so far above us, that we vainly try to cognize them with certainty, and our powers of mental vision are rather excited than satisfied by the glimpses we may chance to seize? It is very doubtful whether it is for our benefit to advance bold affirmations regarding subjects involved in such obscurity; perhaps it would even be detrimental to our best interests. But it is undoubtedly always beneficial to leave the investigating, as well as the critical reason, in perfect freedom, and permit it to take charge of its own interests, which are advanced as much by its limitation, as by its extension of its views, and which always suffer by the interference of foreign powers forcing it, against its natural tendencies, to bend to certain preconceived designs.

Allow your opponent to say what he thinks reasonable, and combat him only with the weapons of reason. Have no anxiety for the practical interests of humanity- these are never imperilled in a purely speculative dispute. Such a dispute serves merely to disclose the antinomy of reason, which, as it has its source in the nature of reason, ought to be thoroughly investigated. Reason is benefited by the examination of a subject on both sides, and its judgements are corrected by being limited. It is not the matter that may give occasion to dispute, but the manner. For it is perfectly permissible

to employ, in the presence of reason, the language of a firmly rooted faith, even after we have been obliged to renounce all pretensions to knowledge.

If we were to ask the dispassionate David Hume- a philosopher endowed, in a degree that few are, with a well-balanced judgement: What motive induced you to spend so much labour and thought in undermining the consoling and beneficial persuasion that reason is capable of assuring us of the existence, and presenting us with a determinate conception of a Supreme Being?- his answer would be: Nothing but the desire of teaching reason to know its own powers better, and, at the same time, a dislike of the procedure by which that faculty was compelled to support foregone conclusions, and prevented from confessing the internal weaknesses which it cannot but feel when it enters upon a rigid self-examination. If, on the other hand, we were to ask Priestley- a philosopher who had no taste for transcendental speculation, but was entirely devoted to the principles of empiricism- what his motives were for overturning those two main pillars of religion- the doctrines of the freedom of the will and the immortality of the soul (in his view the hope of a future life is but the expectation of the miracle of resurrection)- this philosopher, himself a zealous and pious teacher of religion, could give no other answer than this: I acted in the interest of reason, which always suffers, when certain objects are explained and judged by a reference to other supposed laws than those of material nature- the only laws which we know in a determinate manner. It would be unfair to decry the latter philosopher, who endeavoured to harmonize his paradoxical opinions with the interests of religion, and to undervalue an honest and reflecting man, because he finds himself at a loss the moment he has left the field of natural science. The same grace must be accorded to Hume, a man not less well-disposed, and quite as blameless in his moral character, and who pushed his abstract speculations to an extreme length, because, as he rightly believed, the object of them lies entirely beyond the bounds of natural science, and within the sphere of pure ideas.

What is to be done to provide against the danger which seems in the present case to menace the best interests of humanity? The course to be pursued in reference to this subject is a perfectly plain and natural one. Let each thinker pursue his own path; if he shows talent, if he gives evidence of profound thought, in one word, if he shows that he possesses the power of reasoning- reason is always the gainer. If you have recourse to other means, if you attempt to coerce reason, if you raise the cry of treason to humanity, if you excite the feelings of the crowd, which can neither understand nor sympathize with such subtle speculations- you will only make yourselves ridiculous. For the question does not concern the advantage or disadvantage which we are expected to reap from such inquiries; the question is merely how far reason can advance in the field of speculation, apart from all kinds of interest, and whether we may depend upon the exertions of speculative reason, or must renounce all reliance on it. Instead of joining the combatants, it is your part to be a tranquil spectator of the struggle- a laborious struggle for the parties engaged, but attended, in its progress as well as in its result, with the most advantageous consequences for the interests of thought and knowledge. It is absurd to expect to be enlightened by Reason, and at the same time to prescribe to her what side of the question she must adopt. Moreover, reason is sufficiently held in check by its own power, the limits imposed on it by its own nature are sufficient; it is unnecessary for you to place over it additional guards, as if its power were dangerous to the constitution of the intellectual state. In the dialectic of reason there is no victory

gained which need in the least disturb your tranquility.

The strife of dialectic is a necessity of reason, and we cannot but wish that it had been conducted long ere this with that perfect freedom which ought to be its essential condition. In this case, we should have had at an earlier period a matured and profound criticism, which must have put an end to all dialectical disputes, by exposing the illusions and prejudices in which they originated.

There is in human nature an unworthy propensity- a propensity which, like everything that springs from nature, must in its final purpose be conducive to the good of humanity- to conceal our real sentiments, and to give expression only to certain received opinions, which are regarded as at once safe and promotive of the common good. It is true, this tendency, not only to conceal our real sentiments, but to profess those which may gain us favour in the eyes of society, has not only civilized, but, in a certain measure, moralized us; as no one can break through the outward covering of respectability, honour, and morality, and thus the seemingly-good examples which we which we see around us form an excellent school for moral improvement, so long as our belief in their genuineness remains unshaken. But this disposition to represent ourselves as better than we are, and to utter opinions which are not our own, can be nothing more than a kind of provisional arrangement of nature to lead us from the rudeness of an uncivilized state, and to teach us how to assume at least the appearance and manner of the good we see. But when true principles have been developed, and have obtained a sure foundation in our habit of thought, this conventionalism must be attacked with earnest vigour, otherwise it corrupts the heart, and checks the growth of good dispositions with the mischievous weed of air appearances.

I am sorry to remark the same tendency to misrepresentation and hypocrisy in the sphere of speculative discussion, where there is less temptation to restrain the free expression of thought. For what can be more prejudicial to the interests of intelligence than to falsify our real sentiments, to conceal the doubts which we feel in regard to our statements, or to maintain the validity of grounds of proof which we well know to be insufficient? So long as mere personal vanity is the source of these unworthy artifices- and this is generally the case in speculative discussions, which are mostly destitute of practical interest, and are incapable of complete demonstration- the vanity of the opposite party exaggerates as much on the other side; and thus the result is the same, although it is not brought about so soon as if the dispute had been conducted in a sincere and upright spirit. But where the mass entertains the notion that the aim of certain subtle speculators is nothing less than to shake the very foundations of public welfare and morality- it seems not only prudent, but even praise worthy, to maintain the good cause by illusory arguments, rather than to give to our supposed opponents the advantage of lowering our declarations to the moderate tone of a merely practical conviction, and of compelling us to confess our inability to attain to apodeictic certainty in speculative subjects. But we ought to reflect that there is nothing, in the world more fatal to the maintenance of a good cause than deceit, misrepresentation, and falsehood. That the strictest laws of honesty should be observed in the discussion of a purely speculative subject is the least requirement that can be made. If we could reckon with security even upon so little, the conflict of speculative reason regarding the important questions of God, immortality, and freedom, would have been either decided long ago, or would very soon be brought to a conclusion. But, in general, the uprightness of the defence stands in an inverse ratio to the goodness of the cause; and perhaps more honesty and fairness are shown by those who deny than by those who

uphold these doctrines.

I shall persuade myself, then, that I have readers who do not wish to see a righteous cause defended by unfair arguments. Such will now recognize the fact that, according to the principles of this Critique, if we consider not what is, but what ought to be the case, there can be really no polemic of pure reason. For how can two persons dispute about a thing, the reality of which neither can present in actual or even in possible experience? Each adopts the plan of meditating on his idea for the purpose of drawing from the idea, if he can, what is more than the idea, that is, the reality of the object which it indicates. How shall they settle the dispute, since neither is able to make his assertions directly comprehensible and certain, but must restrict himself to attacking and confuting those of his opponent? All statements enounced by pure reason transcend the conditions of possible experience, beyond the sphere of which we can discover no criterion of truth, while they are at the same time framed in accordance with the laws of the understanding, which are applicable only to experience; and thus it is the fate of all such speculative discussions that while the one party attacks the weaker side of his opponent, he infallibly lays open his own weaknesses.

The critique of pure reason may be regarded as the highest tribunal for all speculative disputes; for it is not involved in these disputes, which have an immediate relation to certain objects and not to the laws of the mind, but is instituted for the purpose of determining the rights and limits of reason.

Without the control of criticism, reason is, as it were, in a state of nature, and can only establish its claims and assertions by war. Criticism, on the contrary, deciding all questions according to the fundamental laws of its own institution, secures to us the peace of law and order, and enables us to discuss all differences in the more tranquil manner of a legal process. In the former case, disputes are ended by victory, which both sides may claim and which is followed by a hollow armistice; in the latter, by a sentence, which, as it strikes at the root of all speculative differences, ensures to all concerned a lasting peace. The endless disputes of a dogmatizing reason compel us to look for some mode of arriving at a settled decision by a critical investigation of reason itself; just as Hobbes maintains that the state of nature is a state of injustice and violence, and that we must leave it and submit ourselves to the constraint of law, which indeed limits individual freedom, but only that it may consist with the freedom of others and with the common good of all.

This freedom will, among other things, permit of our openly stating the difficulties and doubts which we are ourselves unable to solve, without being decried on that account as turbulent and dangerous citizens. This privilege forms part of the native rights of human reason, which recognizes no other judge than the universal reason of humanity; and as this reason is the source of all progress and improvement, such a privilege is to be held sacred and inviolable. It is unwise, moreover, to denounce as dangerous any bold assertions against, or rash attacks upon, an opinion which is held by the largest and most moral class of the community; for that would be giving them an importance which they do not deserve. When I hear that the freedom of the will, the hope of a future life, and the existence of God have been overthrown by the arguments of some able writer, I feel a strong desire to read his book; for I expect that he will add to my knowledge and impart greater clearness and distinctness to my views by the argumentative power shown in his writings. But I am perfectly certain, even before I have opened the book, that he has not succeeded in a single point, not because I believe I am in

possession of irrefutable demonstrations of these important propositions, but because this transcendental critique, which has disclosed to me the power and the limits of pure reason, has fully convinced me that, as it is insufficient to establish the affirmative, it is as powerless, and even more so, to assure us of the truth of the negative answer to these questions. From what source does this free-thinker derive his knowledge that there is, for example, no Supreme Being? This proposition lies out of the field of possible experience, and, therefore, beyond the limits of human cognition. But I would not read at, all the answer which the dogmatical maintainer of the good cause makes to his opponent, because I know well beforehand, that he will merely attack the fallacious grounds of his adversary, without being able to establish his own assertions. Besides, a new illusory argument, in the construction of which talent and acuteness are shown, is suggestive of new ideas and new trains of reasoning, and in this respect the old and everyday sophistries are quite useless. Again, the dogmatical opponent of religion gives employment to criticism, and enables us to test and correct its principles, while there is no occasion for anxiety in regard to the influence and results of his reasoning.

But, it will be said, must we not warn the youth entrusted to academical care against such writings, must we not preserve them from the knowledge of these dangerous assertions, until their judgement is ripened, or rather until the doctrines which we wish to inculcate are so firmly rooted in their minds as to withstand all attempts at instilling the contrary dogmas, from whatever quarter they may come?

If we are to confine ourselves to the dogmatical procedure in the sphere of pure reason, and find ourselves unable to settle such disputes otherwise than by becoming a party in them, and setting counter-assertions against the statements advanced by our opponents, there is certainly no plan more advisable for the moment, but, at the same time, none more absurd and inefficient for the future, than this retaining of the youthful mind under guardianship for a time, and thus preserving it- for so long at least- from seduction into error. But when, at a later period, either curiosity, or the prevalent fashion of thought places such writings in their hands, will the so-called convictions of their youth stand firm? The young thinker, who has in his armoury none but dogmatical weapons with which to resist the attacks of his opponent, and who cannot detect the latent dialectic which lies in his own opinions as well as in those of the opposite party, sees the advance of illusory arguments and grounds of proof which have the advantage of novelty, against as illusory grounds of proof destitute of this advantage, and which, perhaps, excite the suspicion that the natural credulity of his youth has been abused by his instructors. He thinks he can find no better means of showing that he has out grown the discipline of his minority than by despising those well-meant warnings, and, knowing no system of thought but that of dogmatism, he drinks deep draughts of the poison that is to sap the principles in which his early years were trained.

Exactly the opposite of the system here recommended ought to be pursued in academical instruction. This can only be effected, however, by a thorough training in the critical investigation of pure reason. For, in order to bring the principles of this critique into exercise as soon as possible, and to demonstrate their perfect even in the presence of the highest degree of dialectical illusion, the student ought to examine the assertions made on both sides of speculative questions step by step, and to test them by these principles. It cannot be a difficult task for him to show the fallacies inherent in

these propositions, and thus he begins early to feel his own power of securing himself against the influence of such sophistical arguments, which must finally lose, for him, all their illusory power. And, although the same blows which overturn the edifice of his opponent are as fatal to his own speculative structures, if such he has wished to rear; he need not feel any sorrow in regard to this seeming misfortune, as he has now before him a fair prospect into the practical region in which he may reasonably hope to find a more secure foundation for a rational system.

There is, accordingly, no proper polemic in the sphere of pure reason. Both parties beat the air and fight with their own shadows, as they pass beyond the limits of nature, and can find no tangible point of attack- no firm footing for their dogmatical conflict. Fight as vigorously as they may, the shadows which they hew down, immediately start up again, like the heroes in Walhalla, and renew the bloodless and unceasing contest.

But neither can we admit that there is any proper sceptical employment of pure reason, such as might be based upon the principle of neutrality in all speculative disputes. To excite reason against itself, to place weapons in the hands of the party on the one side as well as in those of the other, and to remain an undisturbed and sarcastic spectator of the fierce struggle that ensues, seems, from the dogmatical point of view, to be a part fitting only a malevolent disposition. But, when the sophist evidences an invincible obstinacy and blindness, and a pride which no criticism can moderate, there is no other practicable course than to oppose to this pride and obstinacy similar feelings and pretensions on the other side, equally well or ill founded, so that reason, staggered by the reflections thus forced upon it, finds it necessary to moderate its confidence in such pretensions and to listen to the advice of criticism. But we cannot stop at these doubts, much less regard the conviction of our ignorance, not only as a cure for the conceit natural to dogmatism, but as the settlement of the disputes in which reason is involved with itself. On the contrary, scepticism is merely a means of awakening reason from its dogmatic dreams and exciting it to a more careful investigation into its own powers and pretensions. But, as scepticism appears to be the shortest road to a permanent peace in the domain of philosophy, and as it is the track pursued by the many who aim at giving a philosophical colouring to their contemptuous dislike of all inquiries of this kind, I think it necessary to present to my readers this mode of thought in its true light.

Scepticism not a Permanent State for Human Reason.

The consciousness of ignorance- unless this ignorance is recognized to be absolutely necessary ought, instead of forming the conclusion of my inquiries, to be the strongest motive to the pursuit of them. All ignorance is either ignorance of things or of the limits of knowledge. If my ignorance is accidental and not necessary, it must incite me, in the first case, to a dogmatical inquiry regarding the objects of which I am ignorant; in the second, to a critical investigation into the bounds of all possible knowledge. But that my ignorance is absolutely necessary and unavoidable, and that it consequently absolves from the duty of all further investigation, is a fact which cannot be made out upon empirical grounds- from observation- but upon critical grounds alone, that is, by a thoroughgoing investigation into the primary sources of cognition. It follows that the determination of the bounds of reason can be made only on a priori grounds; while the empirical limitation of reason, which is merely an indeterminate cognition of an

ignorance that can never be completely removed, can take place only a posteriori. In other words, our empirical knowledge is limited by that which yet remains for us to know. The former cognition of our ignorance, which is possible only on a rational basis, is a science; the latter is merely a perception, and we cannot say how far the inferences drawn from it may extend. If I regard the earth, as it really appears to my senses, as a flat surface, I am ignorant how far this surface extends. But experience teaches me that, how far soever I go, I always see before me a space in which I can proceed farther; and thus I know the limits- merely visual- of my actual knowledge of the earth, although I am ignorant of the limits of the earth itself. But if I have got so far as to know that the earth is a sphere, and that its surface is spherical, I can cognize a priori and determine upon principles, from my knowledge of a small part of this surface- say to the extent of a degree- the diameter and circumference of the earth; and although I am ignorant of the objects which this surface contains, I have a perfect knowledge of its limits and extent.

The sum of all the possible objects of our cognition seems to us to be a level surface, with an apparent horizon- that which forms the limit of its extent, and which has been termed by us the idea of unconditioned totality. To reach this limit by empirical means is impossible, and all attempts to determine it a priori according to a principle, are alike in vain. But all the questions raised by pure reason relate to that which lies beyond this horizon, or, at least, in its boundary line.

The celebrated David Hume was one of those geographers of human reason who believe that they have given a sufficient answer to all such questions by declaring them to lie beyond the horizon of our knowledge- a horizon which, however, Hume was unable to determine. His attention especially was directed to the principle of causality; and he remarked with perfect justice that the truth of this principle, and even the objective validity of the conception of a cause, was not commonly based upon clear insight, that is, upon a priori cognition. Hence he concluded that this law does not derive its authority from its universality and necessity, but merely from its general applicability in the course of experience, and a kind of subjective necessity thence arising, which he termed habit. From the inability of reason to establish this principle as a necessary law for the acquisition of all experience, he inferred the nullity of all the attempts of reason to pass the region of the empirical.

This procedure of subjecting the facta of reason to examination, and, if necessary, to disapproval, may be termed the censura of reason. This censura must inevitably lead us to doubts regarding all transcendent employment of principles. But this is only the second step in our inquiry. The first step in regard to the subjects of pure reason, and which marks the infancy of that faculty, is that of dogmatism. The second, which we have just mentioned, is that of scepticism, and it gives evidence that our judgement has been improved by experience. But a third step is necessary- indicative of the maturity and manhood of the judgement, which now lays a firm foundation upon universal and necessary principles. This is the period of criticism, in which we do not examine the facta of reason, but reason itself, in the whole extent of its powers, and in regard to its capability of a priori cognition; and thus we determine not merely the empirical and ever-shifting bounds of our knowledge, but its necessary and eternal limits. We demonstrate from indubitable principles, not merely our ignorance in respect to this or that subject, but in regard to all possible questions of a certain class. Thus scepticism is a resting place for reason, in which it may reflect on its dogmatical

wanderings and gain some knowledge of the region in which it happens to be, that it may pursue its way with greater certainty; but it cannot be its permanent dwelling-place. It must take up its abode only in the region of complete certitude, whether this relates to the cognition of objects themselves, or to the limits which bound all our cognition.

Reason is not to be considered as an indefinitely extended plane, of the bounds of which we have only a general knowledge; it ought rather to be compared to a sphere, the radius of which may be found from the curvature of its surface- that is, the nature of a priori synthetical propositions- and, consequently, its circumference and extent. Beyond the sphere of experience there are no objects which it can cognize; nay, even questions regarding such supposititious objects relate only to the subjective principles of a complete determination of the relations which exist between the understanding-conceptions which lie within this sphere.

We are actually in possession of a priori synthetical cognitions, as is proved by the existence of the principles of the understanding, which anticipate experience. If any one cannot comprehend the possibility of these principles, he may have some reason to doubt whether they are really a priori; but he cannot on this account declare them to be impossible, and affirm the nullity of the steps which reason may have taken under their guidance. He can only say: If we perceived their origin and their authenticity, we should be able to determine the extent and limits of reason; but, till we can do this, all propositions regarding the latter are mere random assertions. In this view, the doubt respecting all dogmatical philosophy, which proceeds without the guidance of criticism, is well grounded; but we cannot therefore deny to reason the ability to construct a sound philosophy, when the way has been prepared by a thorough critical investigation. All the conceptions produced, and all the questions raised, by pure reason, do not lie in the sphere of experience, but in that of reason itself, and hence they must be solved, and shown to be either valid or inadmissible, by that faculty. We have no right to decline the solution of such problems, on the ground that the solution can be discovered only from the nature of things, and under pretence of the limitation of human faculties, for reason is the sole creator of all these ideas, and is therefore bound either to establish their validity or to expose their illusory nature.

The polemic of scepticism is properly directed against the dogmatist, who erects a system of philosophy without having examined the fundamental objective principles on which it is based, for the purpose of evidencing the futility of his designs, and thus bringing him to a knowledge of his own powers. But, in itself, scepticism does not give us any certain information in regard to the bounds of our knowledge. All unsuccessful dogmatical attempts of reason are *facia*, which it is always useful to submit to the censure of the sceptic. But this cannot help us to any decision regarding the expectations which reason cherishes of better success in future endeavours; the investigations of scepticism cannot, therefore, settle the dispute regarding the rights and powers of human reason.

Hume is perhaps the ablest and most ingenious of all sceptical philosophers, and his writings have, undoubtedly, exerted the most powerful influence in awakening reason to a thorough investigation into its own powers. It will, therefore, well repay our labours to consider for a little the course of reasoning which he followed and the errors into which he strayed, although setting out on the path of truth and certitude.

Hume was probably aware, although he never clearly developed the

notion, that we proceed in judgements of a certain class beyond our conception of the object. I have termed this kind of judgement synthetical. As regard the manner in which I pass beyond my conception by the aid of experience, no doubts can be entertained. Experience is itself a synthesis of perceptions; and it employs perceptions to increment the conception, which I obtain by means of another perception. But we feel persuaded that we are able to proceed beyond a conception, and to extend our cognition a priori. We attempt this in two ways- either, through the pure understanding, in relation to that which may become an object of experience, or, through pure reason, in relation to such properties of things, or of the existence of things, as can never be presented in any experience. This sceptical philosopher did not distinguish these two kinds of judgements, as he ought to have done, but regarded this augmentation of conceptions, and, if we may so express ourselves, the spontaneous generation of understanding and reason, independently of the impregnation of experience, as altogether impossible. The so-called a priori principles of these faculties he consequently held to be invalid and imaginary, and regarded them as nothing but subjective habits of thought originating in experience, and therefore purely empirical and contingent rules, to which we attribute a spurious necessity and universality. In support of this strange assertion, he referred us to the generally acknowledged principle of the relation between cause and effect. No faculty of the mind can conduct us from the conception of a thing to the existence of something else; and hence he believed he could infer that, without experience, we possess no source from which we can augment a conception, and no ground sufficient to justify us in framing a judgement that is to extend our cognition a priori. That the light of the sun, which shines upon a piece of wax, at the same time melts it, while it hardens clay, no power of the understanding could infer from the conceptions which we previously possessed of these substances; much less is there any a priori law that could conduct us to such a conclusion, which experience alone can certify. On the other hand, we have seen in our discussion of transcendental logic, that, although we can never proceed immediately beyond the content of the conception which is given us, we can always cognize completely a priori- in relation, however, to a third term, namely, possible experience- the law of its connection with other things. For example, if I observe that a piece of wax melts, I can cognize a priori that there must have been something (the sun's heat) preceding, which this law; although, without the aid of experience, I could not cognize a priori and in a determinate manner either the cause from the effect, or the effect from the cause. Hume was, therefore, wrong in inferring, from the contingency of the determination according to law, the contingency of the law itself; and the passing beyond the conception of a thing to possible experience (which is an a priori proceeding, constituting the objective reality of the conception), he confounded with our synthesis of objects in actual experience, which is always, of course, empirical. Thus, too, he regarded the principle of affinity, which has its seat in the understanding and indicates a necessary connection, as a mere rule of association, lying in the imitative faculty of imagination, which can present only contingent, and not objective connections.

The sceptical errors of this remarkably acute thinker arose principally from a defect, which was common to him with the dogmatists, namely, that he had never made a systematic review of all the different kinds of a priori synthesis performed by the understanding. Had he done so, he would have found, to take one example among many, that the principle of permanence was of this

character, and that it, as well as the principle of causality, anticipates experience. In this way he might have been able to describe the determinate limits of the a priori operations of understanding and reason. But he merely declared the understanding to be limited, instead of showing what its limits were; he created a general mistrust in the power of our faculties, without giving us any determinate knowledge of the bounds of our necessary and unavoidable ignorance; he examined and condemned some of the principles of the understanding, without investigating all its powers with the completeness necessary to criticism. He denies, with truth, certain powers to the understanding, but he goes further, and declares it to be utterly inadequate to the a priori extension of knowledge, although he has not fully examined all the powers which reside in the faculty; and thus the fate which always overtakes scepticism meets him too. That is to say, his own declarations are doubted, for his objections were based upon facta, which are contingent, and not upon principles, which can alone demonstrate the necessary invalidity of all dogmatical assertions.

As Hume makes no distinction between the well-grounded claims of the understanding and the dialectical pretensions of reason, against which, however, his attacks are mainly directed, reason does not feel itself shut out from all attempts at the extension of a priori cognition, and hence it refuses, in spite of a few checks in this or that quarter, to relinquish such efforts. For one naturally arms oneself to resist an attack, and becomes more obstinate in the resolve to establish the claims he has advanced. But a complete review of the powers of reason, and the conviction thence arising that we are in possession of a limited field of action, while we must admit the vanity of higher claims, puts an end to all doubt and dispute, and induces reason to rest satisfied with the undisturbed possession of its limited domain.

To the uncritical dogmatist, who has not surveyed the sphere of his understanding, nor determined, in accordance with principles, the limits of possible cognition, who, consequently, is ignorant of his own powers, and believes he will discover them by the attempts he makes in the field of cognition, these attacks of scepticism are not only dangerous, but destructive. For if there is one proposition in his chain of reasoning which he cannot prove, or the fallacy in which he cannot evolve in accordance with a principle, suspicion falls on all his statements, however plausible they may appear.

And thus scepticism, the bane of dogmatical philosophy, conducts us to a sound investigation into the understanding and the reason. When we are thus far advanced, we need fear no further attacks; for the limits of our domain are clearly marked out, and we can make no claims nor become involved in any disputes regarding the region that lies beyond these limits. Thus the sceptical procedure in philosophy does not present any solution of the problems of reason, but it forms an excellent exercise for its powers, awakening its circumspection, and indicating the means whereby it may most fully establish its claims to its legitimate possessions.

SECTION III. The Discipline of Pure Reason in Hypothesis.

This critique of reason has now taught us that all its efforts to extend the bounds of knowledge, by means of pure speculation, are utterly fruitless. So much the wider field, it may appear, lies open to hypothesis; as, where we cannot know with certainty, we are at liberty to make guesses and to form suppositions.

Imagination may be allowed, under the strict surveillance of reason, to invent suppositions; but, these must be based on something that

is perfectly certain- and that is the possibility of the object. If we are well assured upon this point, it is allowable to have recourse to supposition in regard to the reality of the object; but this supposition must, unless it is utterly groundless, be connected, as its ground of explanation, with that which is really given and absolutely certain. Such a supposition is termed a hypothesis.

It is beyond our power to form the least conception a priori of the possibility of dynamical connection in phenomena; and the category of the pure understanding will not enable us to ex. cogitate any such connection, but merely helps us to understand it, when we meet with it in experience. For this reason we cannot, in accordance with the categories, imagine or invent any object or any property of an object not given, or that may not be given in experience, and employ it in a hypothesis; otherwise, we should be basing our chain of reasoning upon mere chimerical fancies, and not upon conceptions of things. Thus, we have no right to assume the existence of new powers, not existing in nature- for example, an understanding with a non-sensuous intuition, a force of attraction without contact, or some new kind of substances occupying space, and yet without the property of impenetrability- and, consequently, we cannot assume that there is any other kind of community among substances than that observable in experience, any kind of presence than that in space, or any kind of duration than that in time. In one word, the conditions of possible experience are for reason the only conditions of the possibility of things; reason cannot venture to form, independently of these conditions, any conceptions of things, because such conceptions, although not self-contradictory, are without object and without application.

The conceptions of reason are, as we have already shown, mere ideas, and do not relate to any object in any kind of experience. At the same time, they do not indicate imaginary or possible objects. They are purely problematical in their nature and, as aids to the heuristic exercise of the faculties, form the basis of the regulative principles for the systematic employment of the understanding in the field of experience. If we leave this ground of experience, they become mere fictions of thought, the possibility of which is quite indemonstrable; and they cannot, consequently, be employed as hypotheses in the explanation of real phenomena. It is quite admissible to cogitate the soul as simple, for the purpose of enabling ourselves to employ the idea of a perfect and necessary unity of all the faculties of the mind as the principle of all our inquiries into its internal phenomena, although we cannot cognize this unity in concreto. But to assume that the soul is a simple substance (a transcendental conception) would be enouncing a proposition which is not only indemonstrable- as many physical hypotheses are- but a proposition which is purely arbitrary, and in the highest degree rash. The simple is never presented in experience; and, if by substance is here meant the permanent object of sensuous intuition, the possibility of a simple phenomenon is perfectly inconceivable. Reason affords no good grounds for admitting the existence of intelligible beings, or of intelligible properties of sensuous things, although- as we have no conception either of their possibility or of their impossibility- it will always be out of our power to affirm dogmatically that they do not exist. In the explanation of given phenomena, no other things and no other grounds of explanation can be employed than those which stand in connection with the given phenomena according to the known laws of experience. A transcendental hypothesis, in which a mere idea of reason is employed to explain the phenomena of nature, would not give us any better insight into a phenomenon, as we should be trying to explain what we do not sufficiently understand from known

empirical principles, by what we do not understand at all. The principles of such a hypothesis might conduce to the satisfaction of reason, but it would not assist the understanding in its application to objects. Order and conformity to aims in the sphere of nature must be themselves explained upon natural grounds and according to natural laws; and the wildest hypotheses, if they are only physical, are here more admissible than a hyperphysical hypothesis, such as that of a divine author. For such a hypothesis would introduce the principle of *ignava ratio*, which requires us to give up the search for causes that might be discovered in the course of experience and to rest satisfied with a mere idea. As regards the absolute totality of the grounds of explanation in the series of these causes, this can be no hindrance to the understanding in the case of phenomena; because, as they are to us nothing more than phenomena, we have no right to look for anything like completeness in the synthesis of the series of their conditions.

Transcendental hypotheses are therefore inadmissible; and we cannot use the liberty of employing, in the absence of physical, hyperphysical grounds of explanation. And this for two reasons; first, because such hypothesis do not advance reason, but rather stop it in its progress; secondly, because this licence would render fruitless all its exertions in its own proper sphere, which is that of experience. For, when the explanation of natural phenomena happens to be difficult, we have constantly at hand a transcendental ground of explanation, which lifts us above the necessity of investigating nature; and our inquiries are brought to a close, not because we have obtained all the requisite knowledge, but because we abut upon a principle which is incomprehensible and which, indeed, is so far back in the track of thought as to contain the conception of the absolutely primal being.

The next requisite for the admissibility of a hypothesis is its sufficiency. That is, it must determine a priori the consequences which are given in experience and which are supposed to follow from the hypothesis itself. If we require to employ auxiliary hypotheses, the suspicion naturally arises that they are mere fictions; because the necessity for each of them requires the same justification as in the case of the original hypothesis, and thus their testimony is invalid. If we suppose the existence of an infinitely perfect cause, we possess sufficient grounds for the explanation of the conformity to aims, the order and the greatness which we observe in the universe; but we find ourselves obliged, when we observe the evil in the world and the exceptions to these laws, to employ new hypothesis in support of the original one. We employ the idea of the simple nature of the human soul as the foundation of all the theories we may form of its phenomena; but when we meet with difficulties in our way, when we observe in the soul phenomena similar to the changes which take place in matter, we require to call in new auxiliary hypotheses. These may, indeed, not be false, but we do not know them to be true, because the only witness to their certitude is the hypothesis which they themselves have been called in to explain.

We are not discussing the above-mentioned assertions regarding the immaterial unity of the soul and the existence of a Supreme Being as dogmata, which certain philosophers profess to demonstrate a priori, but purely as hypotheses. In the former case, the dogmatist must take care that his arguments possess the apodeictic certainty of a demonstration. For the assertion that the reality of such ideas is probable is as absurd as a proof of the probability of a proposition in geometry. Pure abstract reason, apart from all experience, can either cognize nothing at all; and hence the judgements it enounces are never mere opinions, they are either apodeictic certainties, or

declarations that nothing can be known on the subject. Opinions and probable judgements on the nature of things can only be employed to explain given phenomena, or they may relate to the effect, in accordance with empirical laws, of an actually existing cause. In other words, we must restrict the sphere of opinion to the world of experience and nature. Beyond this region opinion is mere invention; unless we are groping about for the truth on a path not yet fully known, and have some hopes of stumbling upon it by chance.

But, although hypotheses are inadmissible in answers to the questions of pure speculative reason, they may be employed in the defence of these answers. That is to say, hypotheses are admissible in polemic, but not in the sphere of dogmatism. By the defence of statements of this character, I do not mean an attempt at discovering new grounds for their support, but merely the refutation of the arguments of opponents. All a priori synthetical propositions possess the peculiarity that, although the philosopher who maintains the reality of the ideas contained in the proposition is not in possession of sufficient knowledge to establish the certainty of his statements, his opponent is as little able to prove the truth of the opposite. This equality of fortune does not allow the one party to be superior to the other in the sphere of speculative cognition; and it is this sphere, accordingly, that is the proper arena of these endless speculative conflicts. But we shall afterwards show that, in relation to its practical exercise, Reason has the right of admitting what, in the field of pure speculation, she would not be justified in supposing, except upon perfectly sufficient grounds; because all such suppositions destroy the necessary completeness of speculation- a condition which the practical reason, however, does not consider to be requisite. In this sphere, therefore, Reason is mistress of a possession, her title to which she does not require to prove- which, in fact, she could not do. The burden of proof accordingly rests upon the opponent. But as he has just as little knowledge regarding the subject discussed, and is as little able to prove the non-existence of the object of an idea, as the philosopher on the other side is to demonstrate its reality, it is evident that there is an advantage on the side of the philosopher who maintains his proposition as a practically necessary supposition (*melior est conditio possidentis*). For he is at liberty to employ, in self-defence, the same weapons as his opponent makes use of in attacking him; that is, he has a right to use hypotheses not for the purpose of supporting the arguments in favour of his own propositions, but to show that his opponent knows no more than himself regarding the subject under discussion and cannot boast of any speculative advantage.

Hypotheses are, therefore, admissible in the sphere of pure reason only as weapons for self-defence, and not as supports to dogmatical assertions. But the opposing party we must always seek for in ourselves. For speculative reason is, in the sphere of transcendentalism, dialectical in its own nature. The difficulties and objections we have to fear lie in ourselves. They are like old but never superannuated claims; and we must seek them out, and settle them once and for ever, if we are to expect a permanent peace. External tranquillity is hollow and unreal. The root of these contradictions, which lies in the nature of human reason, must be destroyed; and this can only be done by giving it, in the first instance, freedom to grow, nay, by nourishing it, that it may send out shoots, and thus betray its own existence. It is our duty, therefore, to try to discover new objections, to put weapons in the hands of our opponent, and to grant him the most favourable position in the arena that he can wish. We have nothing to fear from these concessions; on

the contrary, we may rather hope that we shall thus make ourselves master of a possession which no one will ever venture to dispute.

The thinker requires, to be fully equipped, the hypotheses of pure reason, which, although but leaden weapons (for they have not been steeled in the armoury of experience), are as useful as any that can be employed by his opponents. If, accordingly, we have assumed, from a non-speculative point of view, the immaterial nature of the soul, and are met by the objection that experience seems to prove that the growth and decay of our mental faculties are mere modifications of the sensuous organism- we can weaken the force of this objection by the assumption that the body is nothing but the fundamental phenomenon, to which, as a necessary condition, all sensibility, and consequently all thought, relates in the present state of our existence; and that the separation of soul and body forms the conclusion of the sensuous exercise of our power of cognition and the beginning of the intellectual. The body would, in this view of the question, be regarded, not as the cause of thought, but merely as its restrictive condition, as promotive of the sensuous and animal, but as a hindrance to the pure and spiritual life; and the dependence of the animal life on the constitution of the body, would not prove that the whole life of man was also dependent on the state of the organism. We might go still farther, and discover new objections, or carry out to their extreme consequences those which have already been adduced.

Generation, in the human race as well as among the irrational animals, depends on so many accidents- of occasion, of proper sustenance, of the laws enacted by the government of a country of vice even, that it is difficult to believe in the eternal existence of a being whose life has begun under circumstances so mean and trivial, and so entirely dependent upon our own control. As regards the continuance of the existence of the whole race, we need have no difficulties, for accident in single cases is subject to general laws; but, in the case of each individual, it would seem as if we could hardly expect so wonderful an effect from causes so insignificant. But, in answer to these objections, we may adduce the transcendental hypothesis that all life is properly intelligible, and not subject to changes of time, and that it neither began in birth, nor will end in death. We may assume that this life is nothing more than a sensuous representation of pure spiritual life; that the whole world of sense is but an image, hovering before the faculty of cognition which we exercise in this sphere, and with no more objective reality than a dream; and that if we could intuit ourselves and other things as they really are, we should see ourselves in a world of spiritual natures, our connection with which did not begin at our birth and will not cease with the destruction of the body. And so on.

We cannot be said to know what has been above asserted, nor do we seriously maintain the truth of these assertions; and the notions therein indicated are not even ideas of reason, they are purely fictitious conceptions. But this hypothetical procedure is in perfect conformity with the laws of reason. Our opponent mistakes the absence of empirical conditions for a proof of the complete impossibility of all that we have asserted; and we have to show him that he has not exhausted the whole sphere of possibility and that he can as little compass that sphere by the laws of experience and nature, as we can lay a secure foundation for the operations of reason beyond the region of experience. Such hypothetical defences against the pretensions of an opponent must not be regarded as declarations of opinion. The philosopher abandons them, so soon as the opposite party renounces its dogmatical conceit. To maintain a simply negative position in relation to propositions which rest on an insecure foundation, well befits the moderation of a true philosopher;

but to uphold the objections urged against an opponent as proofs of the opposite statement is a proceeding just as unwarrantable and arrogant as it is to attack the position of a philosopher who advances affirmative propositions regarding such a subject.

It is evident, therefore, that hypotheses, in the speculative sphere, are valid, not as independent propositions, but only relatively to opposite transcendent assumptions. For, to make the principles of possible experience conditions of the possibility of things in general is just as transcendent a procedure as to maintain the objective reality of ideas which can be applied to no objects except such as lie without the limits of possible experience. The judgements enounced by pure reason must be necessary, or they must not be enounced at all. Reason cannot trouble herself with opinions. But the hypotheses we have been discussing are merely problematical judgements, which can neither be confuted nor proved; while, therefore, they are not personal opinions, they are indispensable as answers to objections which are liable to be raised. But we must take care to confine them to this function, and guard against any assumption on their part of absolute validity, a proceeding which would involve reason in inextricable difficulties and contradictions.

SECTION IV. The Discipline of Pure Reason in Relation to Proofs.

It is a peculiarity, which distinguishes the proofs of transcendental synthetical propositions from those of all other a priori synthetical cognitions, that reason, in the case of the former, does not apply its conceptions directly to an object, but is first obliged to prove, a priori, the objective validity of these conceptions and the possibility of their syntheses. This is not merely a prudential rule, it is essential to the very possibility of the proof of a transcendental proposition. If I am required to pass, a priori, beyond the conception of an object, I find that it is utterly impossible without the guidance of something which is not contained in the conception. In mathematics, it is a priori intuition that guides my synthesis; and, in this case, all our conclusions may be drawn immediately from pure intuition. In transcendental cognition, so long as we are dealing only with conceptions of the understanding, we are guided by possible experience. That is to say, a proof in the sphere of transcendental cognition does not show that the given conception (that of an event, for example) leads directly to another conception (that of a cause)-for this would be a saltus which nothing can justify; but it shows that experience itself, and consequently the object of experience, is impossible without the connection indicated by these conceptions. It follows that such a proof must demonstrate the possibility of arriving, synthetically and a priori, at a certain knowledge of things, which was not contained in our conceptions of these things. Unless we pay particular attention to this requirement, our proofs, instead of pursuing the straight path indicated by reason, follow the tortuous road of mere subjective association. The illusory conviction, which rests upon subjective causes of association, and which is considered as resulting from the perception of a real and objective natural affinity, is always open to doubt and suspicion. For this reason, all the attempts which have been made to prove the principle of sufficient reason, have, according to the universal admission of philosophers, been quite unsuccessful; and, before the appearance of transcendental criticism, it was considered better, as this principle could not be abandoned, to appeal boldly to the common sense of mankind (a proceeding which always proves that the

problem, which reason ought to solve, is one in which philosophers find great difficulties), rather than attempt to discover new dogmatical proofs.

But, if the proposition to be proved is a proposition of pure reason, and if I aim at passing beyond my empirical conceptions by the aid of mere ideas, it is necessary that the proof should first show that such a step in synthesis is possible (which it is not), before it proceeds to prove the truth of the proposition itself. The so-called proof of the simple nature of the soul from the unity of apperception, is a very plausible one. But it contains no answer to the objection, that, as the notion of absolute simplicity is not a conception which is directly applicable to a perception, but is an idea which must be inferred- if at all- from observation, it is by no means evident how the mere fact of consciousness, which is contained in all thought, although in so far a simple representation, can conduct me to the consciousness and cognition of a thing which is purely a thinking substance. When I represent to my mind the power of my body as in motion, my body in this thought is so far absolute unity, and my representation of it is a simple one; and hence I can indicate this representation by the motion of a point, because I have made abstraction of the size or volume of the body. But I cannot hence infer that, given merely the moving power of a body, the body may be cogitated as simple substance, merely because the representation in my mind takes no account of its content in space, and is consequently simple. The simple, in abstraction, is very different from the objectively simple; and hence the Ego, which is simple in the first sense, may, in the second sense, as indicating the soul itself, be a very complex conception, with a very various content. Thus it is evident that in all such arguments there lurks a parallogism. We guess (for without some such surmise our suspicion would not be excited in reference to a proof of this character) at the presence of the parallogism, by keeping ever before us a criterion of the possibility of those synthetical propositions which aim at proving more than experience can teach us. This criterion is obtained from the observation that such proofs do not lead us directly from the subject of the proposition to be proved to the required predicate, but find it necessary to presuppose the possibility of extending our cognition a priori by means of ideas. We must, accordingly, always use the greatest caution; we require, before attempting any proof, to consider how it is possible to extend the sphere of cognition by the operations of pure reason, and from what source we are to derive knowledge, which is not obtained from the analysis of conceptions, nor relates, by anticipation, to possible experience. We shall thus spare ourselves much severe and fruitless labour, by not expecting from reason what is beyond its power, or rather by subjecting it to discipline, and teaching it to moderate its vehement desires for the extension of the sphere of cognition.

The first rule for our guidance is, therefore, not to attempt a transcendental proof, before we have considered from what source we are to derive the principles upon which the proof is to be based, and what right we have to expect that our conclusions from these principles will be veracious. If they are principles of the understanding, it is vain to expect that we should attain by their means to ideas of pure reason; for these principles are valid only in regard to objects of possible experience. If they are principles of pure reason, our labour is alike in vain. For the principles of reason, if employed as objective, are without exception dialectical and possess no validity or truth, except as regulative principles of the systematic employment of reason in experience. But when such delusive proof are presented to us, it is our duty to meet them with

the non liquet of a matured judgement; and, although we are unable to expose the particular sophism upon which the proof is based, we have a right to demand a deduction of the principles employed in it; and, if these principles have their origin in pure reason alone, such a deduction is absolutely impossible. And thus it is unnecessary that we should trouble ourselves with the exposure and confutation of every sophistical illusion; we may, at once, bring all dialectic, which is inexhaustible in the production of fallacies, before the bar of critical reason, which tests the principles upon which all dialectical procedure is based. The second peculiarity of transcendental proof is that a transcendental proposition cannot rest upon more than a single proof. If I am drawing conclusions, not from conceptions, but from intuition corresponding to a conception, be it pure intuition, as in mathematics, or empirical, as in natural science, the intuition which forms the basis of my inferences presents me with materials for many synthetical propositions, which I can connect in various modes, while, as it is allowable to proceed from different points in the intention, I can arrive by different paths at the same proposition.

But every transcendental proposition sets out from a conception, and posits the synthetical condition of the possibility of an object according to this conception. There must, therefore, be but one ground of proof, because it is the conception alone which determines the object; and thus the proof cannot contain anything more than the determination of the object according to the conception. In our *Transcendental Analytic*, for example, we inferred the principle: Every event has a cause, from the only condition of the objective possibility of our conception of an event. This is that an event cannot be determined in time, and consequently cannot form a part of experience, unless it stands under this dynamical law. This is the only possible ground of proof; for our conception of an event possesses objective validity, that is, is a true conception, only because the law of causality determines an object to which it can refer. Other arguments in support of this principle have been attempted- such as that from the contingent nature of a phenomenon; but when this argument is considered, we can discover no criterion of contingency, except the fact of an event- of something happening, that is to say, the existence which is preceded by the non-existence of an object, and thus we fall back on the very thing to be proved. If the proposition: "Every thinking being is simple," is to be proved, we keep to the conception of the ego, which is simple, and to which all thought has a relation. The same is the case with the transcendental proof of the existence of a Deity, which is based solely upon the harmony and reciprocal fitness of the conceptions of an ens realissimum and a necessary being, and cannot be attempted in any other manner.

This caution serves to simplify very much the criticism of all propositions of reason. When reason employs conceptions alone, only one proof of its thesis is possible, if any. When, therefore, the dogmatist advances with ten arguments in favour of a proposition, we may be sure that not one of them is conclusive. For if he possessed one which proved the proposition he brings forward to demonstration- as must always be the case with the propositions of pure reason- what need is there for any more? His intention can only be similar to that of the advocate who had different arguments for different judges; this availing himself of the weakness of those who examine his arguments, who, without going into any profound investigation, adopt the view of the case which seems most probable at first sight and decide according to it.

The third rule for the guidance of pure reason in the conduct of a

proof is that all transcendental proofs must never be apagogic or indirect, but always ostensive or direct. The direct or ostensive proof not only establishes the truth of the proposition to be proved, but exposes the grounds of its truth; the apagogic, on the other hand, may assure us of the truth of the proposition, but it cannot enable us to comprehend the grounds of its possibility. The latter is, accordingly, rather an auxiliary to an argument, than a strictly philosophical and rational mode of procedure. In one respect, however, they have an advantage over direct proofs, from the fact that the mode of arguing by contradiction, which they employ, renders our understanding of the question more clear, and approximates the proof to the certainty of an intuitional demonstration.

The true reason why indirect proofs are employed in different sciences is this. When the grounds upon which we seek to base a cognition are too various or too profound, we try whether or not we may not discover the truth of our cognition from its consequences. The modus ponens of reasoning from the truth of its inferences to the truth of a proposition would be admissible if all the inferences that can be drawn from it are known to be true; for in this case there can be only one possible ground for these inferences, and that is the true one. But this is a quite impracticable procedure, as it surpasses all our powers to discover all the possible inferences that can be drawn from a proposition. But this mode of reasoning is employed, under favour, when we wish to prove the truth of an hypothesis; in which case we admit the truth of the conclusion- which is supported by analogy- that, if all the inferences we have drawn and examined agree with the proposition assumed, all other possible inferences will also agree with it. But, in this way, an hypothesis can never be established as a demonstrated truth. The modus tollens of reasoning from known inferences to the unknown proposition, is not only a rigorous, but a very easy mode of proof. For, if it can be shown that but one inference from a proposition is false, then the proposition must itself be false. Instead, then, of examining, in an ostensive argument, the whole series of the grounds on which the truth of a proposition rests, we need only take the opposite of this proposition, and if one inference from it be false, then must the opposite be itself false; and, consequently, the proposition which we wished to prove must be true.

The apagogic method of proof is admissible only in those sciences where it is impossible to mistake a subjective representation for an objective cognition. Where this is possible, it is plain that the opposite of a given proposition may contradict merely the subjective conditions of thought, and not the objective cognition; or it may happen that both propositions contradict each other only under a subjective condition, which is incorrectly considered to be objective, and, as the condition is itself false, both propositions may be false, and it will, consequently, be impossible to conclude the truth of the one from the falseness of the other.

In mathematics such subreptions are impossible; and it is in this science, accordingly, that the indirect mode of proof has its true place. In the science of nature, where all assertion is based upon empirical intuition, such subreptions may be guarded against by the repeated comparison of observations; but this mode of proof is of little value in this sphere of knowledge. But the transcendental efforts of pure reason are all made in the sphere of the subjective, which is the real medium of all dialectical illusion; and thus reason endeavours, in its premisses, to impose upon us subjective representations for objective cognitions. In the transcendental sphere of pure reason, then, and in the case of synthetical propositions, it is inadmissible to support a statement by disproving the

counter-statement. For only two cases are possible; either, the counter-statement is nothing but the enunciation of the inconsistency of the opposite opinion with the subjective conditions of reason, which does not affect the real case (for example, we cannot comprehend the unconditioned necessity of the existence of a being, and hence every speculative proof of the existence of such a being must be opposed on subjective grounds, while the possibility of this being in itself cannot with justice be denied); or, both propositions, being dialectical in their nature, are based upon an impossible conception. In this latter case the rule applies: *non entis nulla sunt predicata*; that is to say, what we affirm and what we deny, respecting such an object, are equally untrue, and the apagogic mode of arriving at the truth is in this case impossible. If, for example, we presuppose that the world of sense is given in itself in its totality, it is false, either that it is infinite, or that it is finite and limited in space. Both are false, because the hypothesis is false. For the notion of phenomena (as mere representations) which are given in themselves (as objects) is self-contradictory; and the infinitude of this imaginary whole would, indeed, be unconditioned, but would be inconsistent (as everything in the phenomenal world is conditioned) with the unconditioned determination and finitude of quantities which is presupposed in our conception.

The apagogic mode of proof is the true source of those illusions which have always had so strong an attraction for the admirers of dogmatical philosophy. It may be compared to a champion who maintains the honour and claims of the party he has adopted by offering battle to all who doubt the validity of these claims and the purity of that honour; while nothing can be proved in this way, except the respective strength of the combatants, and the advantage, in this respect, is always on the side of the attacking party. Spectators, observing that each party is alternately conqueror and conquered, are led to regard the subject of dispute as beyond the power of man to decide upon. But such an opinion cannot be justified; and it is sufficient to apply to these reasoners the remark:

Non defensoribus istis
Tempus eget.

Each must try to establish his assertions by a transcendental deduction of the grounds of proof employed in his argument, and thus enable us to see in what way the claims of reason may be supported. If an opponent bases his assertions upon subjective grounds, he may be refuted with ease; not, however to the advantage of the dogmatist, who likewise depends upon subjective sources of cognition and is in like manner driven into a corner by his opponent. But, if parties employ the direct method of procedure, they will soon discover the difficulty, nay, the impossibility of proving their assertions, and will be forced to appeal to prescription and precedence; or they will, by the help of criticism, discover with ease the dogmatical illusions by which they had been mocked, and compel reason to renounce its exaggerated pretensions to speculative insight and to confine itself within the limits of its proper sphere- that of practical principles.

CHAPTER II. The Canon of Pure Reason.

It is a humiliating consideration for human reason that it is incompetent to discover truth by means of pure speculation, but, on the contrary, stands in need of discipline to check its deviations from the straight path and to expose the illusions which it

originates. But, on the other hand, this consideration ought to elevate and to give it confidence, for this discipline is exercised by itself alone, and it is subject to the censure of no other power. The bounds, moreover, which it is forced to set to its speculative exercise, form likewise a check upon the fallacious pretensions of opponents; and thus what remains of its possessions, after these exaggerated claims have been disallowed, is secure from attack or usurpation. The greatest, and perhaps the only, use of all philosophy of pure reason is, accordingly, of a purely negative character. It is not an organon for the extension, but a discipline for the determination, of the limits of its exercise; and without laying claim to the discovery of new truth, it has the modest merit of guarding against error.

At the same time, there must be some source of positive cognitions which belong to the domain of pure reason and which become the causes of error only from our mistaking their true character, while they form the goal towards which reason continually strives. How else can we account for the inextinguishable desire in the human mind to find a firm footing in some region beyond the limits of the world of experience? It hopes to attain to the possession of a knowledge in which it has the deepest interest. It enters upon the path of pure speculation; but in vain. We have some reason, however, to expect that, in the only other way that lies open to it- the path of practical reason- it may meet with better success.

I understand by a canon a list of the a priori principles of the proper employment of certain faculties of cognition. Thus general logic, in its analytical department, is a formal canon for the faculties of understanding and reason. In the same way, Transcendental Analytic was seen to be a canon of the pure understanding; for it alone is competent to enounce true a priori synthetical cognitions. But, when no proper employment of a faculty of cognition is possible, no canon can exist. But the synthetical cognition of pure speculative reason is, as has been shown, completely impossible. There cannot, therefore, exist any canon for the speculative exercise of this faculty- for its speculative exercise is entirely dialectical; and, consequently, transcendental logic, in this respect, is merely a discipline, and not a canon. If, then, there is any proper mode of employing the faculty of pure reason- in which case there must be a canon for this faculty- this canon will relate, not to the speculative, but to the practical use of reason. This canon we now proceed to investigate.

SECTION I. Of the Ultimate End of the Pure Use of Reason.

There exists in the faculty of reason a natural desire to venture beyond the field of experience, to attempt to reach the utmost bounds of all cognition by the help of ideas alone, and not to rest satisfied until it has fulfilled its course and raised the sum of its cognitions into a self-subsistent systematic whole. Is the motive for this endeavour to be found in its speculative, or in its practical interests alone?

Setting aside, at present, the results of the labours of pure reason in its speculative exercise, I shall merely inquire regarding the problems the solution of which forms its ultimate aim, whether reached or not, and in relation to which all other aims are but partial and intermediate. These highest aims must, from the nature of reason, possess complete unity; otherwise the highest interest of humanity could not be successfully promoted.

The transcendental speculation of reason relates to three things: the freedom of the will, the immortality of the soul, and the

existence of God. The speculative interest which reason has in those questions is very small; and, for its sake alone, we should not undertake the labour of transcendental investigation- a labour full of toil and ceaseless struggle. We should be loth to undertake this labour, because the discoveries we might make would not be of the smallest use in the sphere of concrete or physical investigation. We may find out that the will is free, but this knowledge only relates to the intelligible cause of our volition. As regards the phenomena or expressions of this will, that is, our actions, we are bound, in obedience to an inviolable maxim, without which reason cannot be employed in the sphere of experience, to explain these in the same way as we explain all the other phenomena of nature, that is to say, according to its unchangeable laws. We may have discovered the spirituality and immortality of the soul, but we cannot employ this knowledge to explain the phenomena of this life, nor the peculiar nature of the future, because our conception of an incorporeal nature is purely negative and does not add anything to our knowledge, and the only inferences to be drawn from it are purely fictitious. If, again, we prove the existence of a supreme intelligence, we should be able from it to make the conformity to aims existing in the arrangement of the world comprehensible; but we should not be justified in deducing from it any particular arrangement or disposition, or inferring any where it is not perceived. For it is a necessary rule of the speculative use of reason that we must not overlook natural causes, or refuse to listen to the teaching of experience, for the sake of deducing what we know and perceive from something that transcends all our knowledge. In one word, these three propositions are, for the speculative reason, always transcendent, and cannot be employed as immanent principles in relation to the objects of experience; they are, consequently, of no use to us in this sphere, being but the valueless results of the severe but unprofitable efforts of reason.

If, then, the actual cognition of these three cardinal propositions is perfectly useless, while Reason uses her utmost endeavours to induce us to admit them, it is plain that their real value and importance relate to our practical, and not to our speculative interest.

I term all that is possible through free will, practical. But if the conditions of the exercise of free volition are empirical, reason can have only a regulative, and not a constitutive, influence upon it, and is serviceable merely for the introduction of unity into its empirical laws. In the moral philosophy of prudence, for example, the sole business of reason is to bring about a union of all the ends, which are aimed at by our inclinations, into one ultimate end- that of happiness- and to show the agreement which should exist among the means of attaining that end. In this sphere, accordingly, reason cannot present to us any other than pragmatistical laws of free action, for our guidance towards the aims set up by the senses, and is incompetent to give us laws which are pure and determined completely a priori. On the other hand, pure practical laws, the ends of which have been given by reason entirely a priori, and which are not empirically conditioned, but are, on the contrary, absolutely imperative in their nature, would be products of pure reason. Such are the moral laws; and these alone belong to the sphere of the practical exercise of reason, and admit of a canon.

All the powers of reason, in the sphere of what may be termed pure philosophy, are, in fact, directed to the three above-mentioned problems alone. These again have a still higher end- the answer to the question, what we ought to do, if the will is free, if there is a God and a future world. Now, as this problem relates to our in

reference to the highest aim of humanity, it is evident that the ultimate intention of nature, in the constitution of our reason, has been directed to the moral alone.

We must take care, however, in turning our attention to an object which is foreign* to the sphere of transcendental philosophy, not to injure the unity of our system by digressions, nor, on the other hand, to fail in clearness, by saying too little on the new subject of discussion. I hope to avoid both extremes, by keeping as close as possible to the transcendental, and excluding all psychological, that is, empirical, elements.

*All practical conceptions relate to objects of pleasure and pain, and consequently- in an indirect manner, at least- to objects of feeling. But as feeling is not a faculty of representation, but lies out of the sphere of our powers of cognition, the elements of our judgements, in so far as they relate to pleasure or pain, that is, the elements of our practical judgements, do not belong to transcendental philosophy, which has to do with pure a priori cognitions alone.

I have to remark, in the first place, that at present I treat of the conception of freedom in the practical sense only, and set aside the corresponding transcendental conception, which cannot be employed as a ground of explanation in the phenomenal world, but is itself a problem for pure reason. A will is purely animal (*arbitrium brutum*) when it is determined by sensuous impulses or instincts only, that is, when it is determined in a pathological manner. A will, which can be determined independently of sensuous impulses, consequently by motives presented by reason alone, is called a free will (*arbitrium liberum*); and everything which is connected with this free will, either as principle or consequence, is termed practical. The existence of practical freedom can be proved from experience alone. For the human will is not determined by that alone which immediately affects the senses; on the contrary, we have the power, by calling up the notion of what is useful or hurtful in a more distant relation, of overcoming the immediate impressions on our sensuous faculty of desire. But these considerations of what is desirable in relation to our whole state, that is, is in the end good and useful, are based entirely upon reason. This faculty, accordingly, enounces laws, which are imperative or objective laws of freedom and which tell us what ought to take place, thus distinguishing themselves from the laws of nature, which relate to that which does take place. The laws of freedom or of free will are hence termed practical laws.

Whether reason is not itself, in the actual delivery of these laws, determined in its turn by other influences, and whether the action which, in relation to sensuous impulses, we call free, may not, in relation to higher and more remote operative causes, really form a part of nature- these are questions which do not here concern us. They are purely speculative questions; and all we have to do, in the practical sphere, is to inquire into the rule of conduct which reason has to present. Experience demonstrates to us the existence of practical freedom as one of the causes which exist in nature, that is, it shows the causal power of reason in the determination of the will. The idea of transcendental freedom, on the contrary, requires that reason- in relation to its causal power of commencing a series of phenomena- should be independent of all sensuous determining causes; and thus it seems to be in opposition to the law of nature and to all possible experience. It therefore remains a problem for the human mind. But this problem does not concern reason in its practical use; and we have, therefore, in a canon of pure

reason, to do with only two questions, which relate to the practical interest of pure reason: Is there a God? and, Is there a future life? The question of transcendental freedom is purely speculative, and we may therefore set it entirely aside when we come to treat of practical reason. Besides, we have already discussed this subject in the antinomy of pure reason.

SECTION II. Of the Ideal of the Summum Bonum as a Determining Ground of the Ultimate End of Pure Reason.

Reason conducted us, in its speculative use, through the field of experience and, as it can never find complete satisfaction in that sphere, from thence to speculative ideas- which, however, in the end brought us back again to experience, and thus fulfilled the purpose of reason, in a manner which, though useful, was not at all in accordance with our expectations. It now remains for us to consider whether pure reason can be employed in a practical sphere, and whether it will here conduct us to those ideas which attain the highest ends of pure reason, as we have just stated them. We shall thus ascertain whether, from the point of view of its practical interest, reason may not be able to supply us with that which, on the speculative side, it wholly denies us.

The whole interest of reason, speculative as well as practical, is centred in the three following questions:

1. WHAT CAN I KNOW?
2. WHAT OUGHT I TO DO?
3. WHAT MAY I HOPE?

The first question is purely speculative. We have, as I flatter myself, exhausted all the replies of which it is susceptible, and have at last found the reply with which reason must content itself, and with which it ought to be content, so long as it pays no regard to the practical. But from the two great ends to the attainment of which all these efforts of pure reason were in fact directed, we remain just as far removed as if we had consulted our ease and declined the task at the outset. So far, then, as knowledge is concerned, thus much, at least, is established, that, in regard to those two problems, it lies beyond our reach.

The second question is purely practical. As such it may indeed fall within the province of pure reason, but still it is not transcendental, but moral, and consequently cannot in itself form the subject of our criticism.

The third question: If I act as I ought to do, what may I then hope?- is at once practical and theoretical. The practical forms a clue to the answer of the theoretical, and- in its highest form- speculative question. For all hoping has happiness for its object and stands in precisely the same relation to the practical and the law of morality as knowing to the theoretical cognition of things and the law of nature. The former arrives finally at the conclusion that something is (which determines the ultimate end), because something ought to take place; the latter, that something is (which operates as the highest cause), because something does take place.

Happiness is the satisfaction of all our desires; extensive, in regard to their multiplicity; intensive, in regard to their degree; and protensive, in regard to their duration. The practical law based on the motive of happiness I term a pragmatistical law (or prudential rule); but that law, assuming such to exist, which has no other motive than the worthiness of being happy, I term a moral or ethical law. The first tells us what we have to do, if we wish to become possessed of

happiness; the second dictates how we ought to act, in order to deserve happiness. The first is based upon empirical principles; for it is only by experience that I can learn either what inclinations exist which desire satisfaction, or what are the natural means of satisfying them. The second takes no account of our desires or the means of satisfying them, and regards only the freedom of a rational being, and the necessary conditions under which alone this freedom can harmonize with the distribution of happiness according to principles. This second law may therefore rest upon mere ideas of pure reason, and may be cognized a priori.

I assume that there are pure moral laws which determine, entirely a priori (without regard to empirical motives, that is, to happiness), the conduct of a rational being, or in other words, to use which it makes of its freedom, and that these laws are absolutely imperative (not merely hypothetically, on the supposition of other empirical ends), and therefore in all respects necessary. I am warranted in assuming this, not only by the arguments of the most enlightened moralists, but by the moral judgement of every man who will make the attempt to form a distinct conception of such a law.

Pure reason, then, contains, not indeed in its speculative, but in its practical, or, more strictly, its moral use, principles of the possibility of experience, of such actions, namely, as, in accordance with ethical precepts, might be met with in the history of man. For since reason commands that such actions should take place, it must be possible for them to take place; and hence a particular kind of systematic unity- the moral- must be possible. We have found, it is true, that the systematic unity of nature could not be established according to speculative principles of reason, because, while reason possesses a causal power in relation to freedom, it has none in relation to the whole sphere of nature; and, while moral principles of reason can produce free actions, they cannot produce natural laws. It is, then, in its practical, but especially in its moral use, that the principles of pure reason possess objective reality.

I call the world a moral world, in so far as it may be in accordance with all the ethical laws- which, by virtue of the freedom of reasonable beings, it can be, and according to the necessary laws of morality it ought to be. But this world must be conceived only as an intelligible world, inasmuch as abstraction is therein made of all conditions (ends), and even of all impediments to morality (the weakness or pravity of human nature). So far, then, it is a mere idea- though still a practical idea- which may have, and ought to have, an influence on the world of sense, so as to bring it as far as possible into conformity with itself. The idea of a moral world has, therefore, objective reality, not as referring to an object of intelligible intuition- for of such an object we can form no conception whatever- but to the world of sense- conceived, however, as an object of pure reason in its practical use- and to a corpus mysticum of rational beings in it, in so far as the liberum arbitrium of the individual is placed, under and by virtue of moral laws, in complete systematic unity both with itself and with the freedom of all others.

That is the answer to the first of the two questions of pure reason which relate to its practical interest: Do that which will render thee worthy of happiness. The second question is this: If I conduct myself so as not to be unworthy of happiness, may I hope thereby to obtain happiness? In order to arrive at the solution of this question, we must inquire whether the principles of pure reason, which prescribe a priori the law, necessarily also connect this hope with it.

I say, then, that just as the moral principles are necessary according to reason in its practical use, so it is equally necessary according to reason in its theoretical use to assume that every one has ground to hope for happiness in the measure in which he has made himself worthy of it in his conduct, and that therefore the system of morality is inseparably (though only in the idea of pure reason) connected with that of happiness.

Now in an intelligible, that is, in the moral world, in the conception of which we make abstraction of all the impediments to morality (sensuous desires), such a system of happiness, connected with and proportioned to morality, may be conceived as necessary, because freedom of volition- partly incited, and partly restrained by moral laws- would be itself the cause of general happiness; and thus rational beings, under the guidance of such principles, would be themselves the authors both of their own enduring welfare and that of others. But such a system of self-rewarding morality is only an idea, the carrying out of which depends upon the condition that every one acts as he ought; in other words, that all actions of reasonable beings be such as they would be if they sprung from a Supreme Will, comprehending in, or under, itself all particular wills. But since the moral law is binding on each individual in the use of his freedom of volition, even if others should not act in conformity with this law, neither the nature of things, nor the causality of actions and their relation to morality, determine how the consequences of these actions will be related to happiness; and the necessary connection of the hope of happiness with the unceasing endeavour to become worthy of happiness, cannot be cognized by reason, if we take nature alone for our guide. This connection can be hoped for only on the assumption that the cause of nature is a supreme reason, which governs according to moral laws.

I term the idea of an intelligence in which the morally most perfect will, united with supreme blessedness, is the cause of all happiness in the world, so far as happiness stands in strict } relation to morality (as the worthiness of being happy), the ideal of the supreme Good. supreme original good, that pure reason can find the ground of the practically necessary connection of both elements of the highest derivative good, and accordingly of an intelligible, that is, moral world. Now since we are necessitated by reason to conceive ourselves as belonging to such a world, while the senses present to us nothing but a world of phenomena, we must assume the former as a consequence of our conduct in the world of sense (since the world of sense gives us no hint of it), and therefore as future in relation to us. Thus God and a future life are two hypotheses which, according to the principles of pure reason, are inseparable from the obligation which this reason imposes upon us.

Morality per se constitutes a system. But we can form no system of happiness, except in so far as it is dispensed in strict proportion to morality. But this is only possible in the intelligible world, under a wise author and ruler. Such a ruler, together with life in such a world, which we must look upon as future, reason finds itself compelled to assume; or it must regard the moral laws as idle dreams, since the necessary consequence which this same reason connects with them must, without this hypothesis, fall to the ground. Hence also the moral laws are universally regarded as commands, which they could not be did they not connect a priori adequate consequences with their dictates, and thus carry with them promises and threats. But this, again, they could not do, did they not reside in a necessary being, as the Supreme Good, which alone can render such a teleological unity possible.

Leibnitz termed the world, when viewed in relation to the rational

beings which it contains, and the moral relations in which they stand to each other, under the government of the Supreme Good, the kingdom of Grace, and distinguished it from the kingdom of Nature, in which these rational beings live, under moral laws, indeed, but expect no other consequences from their actions than such as follow according to the course of nature in the world of sense. To view ourselves, therefore, as in the kingdom of grace, in which all happiness awaits us, except in so far as we ourselves limit our participation in it by actions which render us unworthy of happiness, is a practically necessary idea of reason.

Practical laws, in so far as they are subjective grounds of actions, that is, subjective principles, are termed maxims. The judgements of moral according to in its purity and ultimate results are framed according ideas; the observance of its laws, according to according to maxims.

The whole course of our life must be subject to moral maxims; but this is impossible, unless with the moral law, which is a mere idea, reason connects an efficient cause which ordains to all conduct which is in conformity with the moral law an issue either in this or in another life, which is in exact conformity with our highest aims. Thus, without a God and without a world, invisible to us now, but hoped for, the glorious ideas of morality are, indeed, objects of approbation and of admiration, but cannot be the springs of purpose and action. For they do not satisfy all the aims which are natural to every rational being, and which are determined a priori by pure reason itself, and necessary.

Happiness alone is, in the view of reason, far from being the complete good. Reason does not approve of it (however much inclination may desire it), except as united with desert. On the other hand, morality alone, and with it, mere desert, is likewise far from being the complete good. To make it complete, he who conducts himself in a manner not unworthy of happiness, must be able to hope for the possession of happiness. Even reason, unbiased by private ends, or interested considerations, cannot judge otherwise, if it puts itself in the place of a being whose business it is to dispense all happiness to others. For in the practical idea both points are essentially combined, though in such a way that participation in happiness is rendered possible by the moral disposition, as its condition, and not conversely, the moral disposition by the prospect of happiness. For a disposition which should require the prospect of happiness as its necessary condition would not be moral, and hence also would not be worthy of complete happiness- a happiness which, in the view of reason, recognizes no limitation but such as arises from our own immoral conduct.

Happiness, therefore, in exact proportion with the morality of rational beings (whereby they are made worthy of happiness), constitutes alone the supreme good of a world into which we absolutely must transport ourselves according to the commands of pure but practical reason. This world is, it is true, only an intelligible world; for of such a systematic unity of ends as it requires, the world of sense gives us no hint. Its reality can be based on nothing else but the hypothesis of a supreme original good. In it independent reason, equipped with all the sufficiency of a supreme cause, founds, maintains, and fulfils the universal order of things, with the most perfect teleological harmony, however much this order may be hidden from us in the world of sense.

This moral theology has the peculiar advantage, in contrast with speculative theology, of leading inevitably to the conception of a sole, perfect, and rational First Cause, whereof speculative theology does not give us any indication on objective grounds, far

less any convincing evidence. For we find neither in transcendental nor in natural theology, however far reason may lead us in these, any ground to warrant us in assuming the existence of one only Being, which stands at the head of all natural causes, and on which these are entirely dependent. On the other hand, if we take our stand on moral unity as a necessary law of the universe, and from this point of view consider what is necessary to give this law adequate efficiency and, for us, obligatory force, we must come to the conclusion that there is one only supreme will, which comprehends all these laws in itself. For how, under different wills, should we find complete unity of ends? This will must be omnipotent, that all nature and its relation to morality in the world may be subject to it; omniscient, that it may have knowledge of the most secret feelings and their moral worth; omnipresent, that it may be at hand to supply every necessity to which the highest weal of the world may give rise; eternal, that this harmony of nature and liberty may never fail; and so on.

But this systematic unity of ends in this world of intelligences- which, as mere nature, is only a world of sense, but, as a system of freedom of volition, may be termed an intelligible, that is, moral world (*regnum gratiae*)- leads inevitably also to the teleological unity of all things which constitute this great whole, according to universal natural laws- just as the unity of the former is according to universal and necessary moral laws- and unites the practical with the speculative reason. The world must be represented as having originated from an idea, if it is to harmonize with that use of reason without which we cannot even consider ourselves as worthy of reason- namely, the moral use, which rests entirely on the idea of the supreme good. Hence the investigation of nature receives a teleological direction, and becomes, in its widest extension, physico-theology. But this, taking its rise in moral order as a unity founded on the essence of freedom, and not accidentally instituted by external commands, establishes the teleological view of nature on grounds which must be inseparably connected with the internal possibility of things. This gives rise to a transcendental theology, which takes the ideal of the highest ontological perfection as a principle of systematic unity; and this principle connects all things according to universal and necessary natural laws, because all things have their origin in the absolute necessity of the one only Primal Being.

What use can we make of our understanding, even in respect of experience, if we do not propose ends to ourselves? But the highest ends are those of morality, and it is only pure reason that can give us the knowledge of these. Though supplied with these, and putting ourselves under their guidance, we can make no teleological use of the knowledge of nature, as regards cognition, unless nature itself has established teleological unity. For without this unity we should not even possess reason, because we should have no school for reason, and no cultivation through objects which afford the materials for its conceptions. But teleological unity is a necessary unity, and founded on the essence of the individual will itself. Hence this will, which is the condition of the application of this unity in concreto, must be so likewise. In this way the transcendental enlargement of our rational cognition would be, not the cause, but merely the effect of the practical teleology which pure reason imposes upon us.

Hence, also, we find in the history of human reason that, before the moral conceptions were sufficiently purified and determined, and before men had attained to a perception of the systematic unity of ends according to these conceptions and from necessary principles, the knowledge of nature, and even a considerable amount of intellectual culture in many other sciences, could produce only rude and vague

conceptions of the Deity, sometimes even admitting of an astonishing indifference with regard to this question altogether. But the more enlarged treatment of moral ideas, which was rendered necessary by the extreme pure moral law of our religion, awakened the interest, and thereby quickened the perceptions of reason in relation to this object. In this way, and without the help either of an extended acquaintance with nature, or of a reliable transcendental insight (for these have been wanting in all ages), a conception of the Divine Being was arrived at, which we now hold to be the correct one, not because speculative reason convinces us of its correctness, but because it accords with the moral principles of reason. Thus it is to pure reason, but only in its practical use, that we must ascribe the merit of having connected with our highest interest a cognition, of which mere speculation was able only to form a conjecture, but the validity of which it was unable to establish- and of having thereby rendered it, not indeed a demonstrated dogma, but a hypothesis absolutely necessary to the essential ends of reason.

But if practical reason has reached this elevation, and has attained to the conception of a sole Primal Being as the supreme good, it must not, therefore, imagine that it has transcended the empirical conditions of its application, and risen to the immediate cognition of new objects; it must not presume to start from the conception which it has gained, and to deduce from it the moral laws themselves. For it was these very laws, the internal practical necessity of which led us to the hypothesis of an independent cause, or of a wise ruler of the universe, who should give them effect. Hence we are not entitled to regard them as accidental and derived from the mere will of the ruler, especially as we have no conception of such a will, except as formed in accordance with these laws. So far, then, as practical reason has the right to conduct us, we shall not look upon actions as binding on us, because they are the commands of God, but we shall regard them as divine commands, because we are internally bound by them. We shall study freedom under the teleological unity which accords with principles of reason; we shall look upon ourselves as acting in conformity with the divine will only in so far as we hold sacred the moral law which reason teaches us from the nature of actions themselves, and we shall believe that we can obey that will only by promoting the weal of the universe in ourselves and in others. Moral theology is, therefore, only of immanent use. It teaches us to fulfil our destiny here in the world, by placing ourselves in harmony with the general system of ends, and warns us against the fanaticism, nay, the crime of depriving reason of its legislative authority in the moral conduct of life, for the purpose of directly connecting this authority with the idea of the Supreme Being. For this would be, not an immanent, but a transcendent use of moral theology, and, like the transcendent use of mere speculation, would inevitably pervert and frustrate the ultimate ends of reason.

SECTION III. Of Opinion, Knowledge, and Belief.

The holding of a thing to be true is a phenomenon in our understanding which may rest on objective grounds, but requires, also, subjective causes in the mind of the person judging. If a judgement is valid for every rational being, then its ground is objectively sufficient, and it is termed a conviction. If, on the other hand, it has its ground in the particular character of the subject, it is termed a persuasion.

Persuasion is a mere illusion, the ground of the judgement, which lies solely in the subject, being regarded as objective. Hence a judgement of this kind has only private validity- is only valid for

the individual who judges, and the holding of a thing to be true in this way cannot be communicated. But truth depends upon agreement with the object, and consequently the judgements of all understandings, if true, must be in agreement with each other (*consentientia uni tertio consentiunt inter se*). Conviction may, therefore, be distinguished, from an external point of view, from persuasion, by the possibility of communicating it and by showing its validity for the reason of every man; for in this case the presumption, at least, arises that the agreement of all judgements with each other, in spite of the different characters of individuals, rests upon the common ground of the agreement of each with the object, and thus the correctness of the judgement is established.

Persuasion, accordingly, cannot be subjectively distinguished from conviction, that is, so long as the subject views its judgement simply as a phenomenon of its own mind. But if we inquire whether the grounds of our judgement, which are valid for us, produce the same effect on the reason of others as on our own, we have then the means, though only subjective means, not, indeed, of producing conviction, but of detecting the merely private validity of the judgement; in other words, of discovering that there is in it the element of mere persuasion.

If we can, in addition to this, develop the subjective causes of the judgement, which we have taken for its objective grounds, and thus explain the deceptive judgement as a phenomenon in our mind, apart altogether from the objective character of the object, we can then expose the illusion and need be no longer deceived by it, although, if its subjective cause lies in our nature, we cannot hope altogether to escape its influence.

I can only maintain, that is, affirm as necessarily valid for every one, that which produces conviction. Persuasion I may keep for myself, if it is agreeable to me; but I cannot, and ought not, to attempt to impose it as binding upon others.

Holding for true, or the subjective validity of a judgement in relation to conviction (which is, at the same time, objectively valid), has the three following degrees: opinion, belief, and knowledge. Opinion is a consciously insufficient judgement, subjectively as well as objectively. Belief is subjectively sufficient, but is recognized as being objectively insufficient. Knowledge is both subjectively and objectively sufficient. Subjective sufficiency is termed conviction (for myself); objective sufficiency is termed certainty (for all). I need not dwell longer on the explanation of such simple conceptions.

I must never venture to be of opinion, without knowing something, at least, by which my judgement, in itself merely problematical, is brought into connection with the truth- which connection, although not perfect, is still something more than an arbitrary fiction. Moreover, the law of such a connection must be certain. For if, in relation to this law, I have nothing more than opinion, my judgement is but a play of the imagination, without the least relation to truth. In the judgements of pure reason, opinion has no place. For, as they do not rest on empirical grounds and as the sphere of pure reason is that of necessary truth and a priori cognition, the principle of connection in it requires universality and necessity, and consequently perfect certainty- otherwise we should have no guide to the truth at all. Hence it is absurd to have an opinion in pure mathematics; we must know, or abstain from forming a judgement altogether. The case is the same with the maxims of morality. For we must not hazard an action on the mere opinion that it is allowed, but we must know it to be so.

In the transcendental sphere of reason, on the other hand, the term opinion is too weak, while the word knowledge is too strong. From

the merely speculative point of view, therefore, we cannot form a judgement at all. For the subjective grounds of a judgement, such as produce belief, cannot be admitted in speculative inquiries, inasmuch as they cannot stand without empirical support and are incapable of being communicated to others in equal measure.

But it is only from the practical point of view that a theoretically insufficient judgement can be termed belief. Now the practical reference is either to skill or to morality; to the former, when the end proposed is arbitrary and accidental, to the latter, when it is absolutely necessary.

If we propose to ourselves any end whatever, the conditions of its attainment are hypothetically necessary. The necessity is subjectively, but still only comparatively, sufficient, if I am acquainted with no other conditions under which the end can be attained. On the other hand, it is sufficient, absolutely and for every one, if I know for certain that no one can be acquainted with any other conditions under which the attainment of the proposed end would be possible. In the former case my supposition- my judgement with regard to certain conditions- is a merely accidental belief; in the latter it is a necessary belief. The physician must pursue some course in the case of a patient who is in danger, but is ignorant of the nature of the disease. He observes the symptoms, and concludes, according to the best of his judgement, that it is a case of phthisis. His belief is, even in his own judgement, only contingent: another man might, perhaps come nearer the truth. Such a belief, contingent indeed, but still forming the ground of the actual use of means for the attainment of certain ends, I term Pragmatical belief.

The usual test, whether that which any one maintains is merely his persuasion, or his subjective conviction at least, that is, his firm belief, is a bet. It frequently happens that a man delivers his opinions with so much boldness and assurance, that he appears to be under no apprehension as to the possibility of his being in error. The offer of a bet startles him, and makes him pause. Sometimes it turns out that his persuasion may be valued at a ducat, but not at ten. For he does not hesitate, perhaps, to venture a ducat, but if it is proposed to stake ten, he immediately becomes aware of the possibility of his being mistaken- a possibility which has hitherto escaped his observation. If we imagine to ourselves that we have to stake the happiness of our whole life on the truth of any proposition, our judgement drops its air of triumph, we take the alarm, and discover the actual strength of our belief. Thus pragmatical belief has degrees, varying in proportion to the interests at stake.

Now, in cases where we cannot enter upon any course of action in reference to some object, and where, accordingly, our judgement is purely theoretical, we can still represent to ourselves, in thought, the possibility of a course of action, for which we suppose that we have sufficient grounds, if any means existed of ascertaining the truth of the matter. Thus we find in purely theoretical judgements an analogon of practical judgements, to which the word belief may properly be applied, and which we may term doctrinal belief. I should not hesitate to stake my all on the truth of the proposition- if there were any possibility of bringing it to the test of experience- that, at least, some one of the planets, which we see, is inhabited. Hence I say that I have not merely the opinion, but the strong belief, on the correctness of which I would stake even many of the advantages of life, that there are inhabitants in other worlds.

Now we must admit that the doctrine of the existence of God belongs to doctrinal belief. For, although in respect to the theoretical cognition of the universe I do not require to form any theory which necessarily involves this idea, as the condition of my

explanation of the phenomena which the universe presents, but, on the contrary, am rather bound so to use my reason as if everything were mere nature, still teleological unity is so important a condition of the application of my reason to nature, that it is impossible for me to ignore it- especially since, in addition to these considerations, abundant examples of it are supplied by experience. But the sole condition, so far as my knowledge extends, under which this unity can be my guide in the investigation of nature, is the assumption that a supreme intelligence has ordered all things according to the wisest ends. Consequently, the hypothesis of a wise author of the universe is necessary for my guidance in the investigation of nature- is the condition under which alone I can fulfil an end which is contingent indeed, but by no means unimportant. Moreover, since the result of my attempts so frequently confirms the utility of this assumption, and since nothing decisive can be adduced against it, it follows that it would be saying far too little to term my judgement, in this case, a mere opinion, and that, even in this theoretical connection, I may assert that I firmly believe in God. Still, if we use words strictly, this must not be called a practical, but a doctrinal belief, which the theology of nature (physico-theology) must also produce in my mind. In the wisdom of a Supreme Being, and in the shortness of life, so inadequate to the development of the glorious powers of human nature, we may find equally sufficient grounds for a doctrinal belief in the future life of the human soul.

The expression of belief is, in such cases, an expression of modesty from the objective point of view, but, at the same time, of firm confidence, from the subjective. If I should venture to term this merely theoretical judgement even so much as a hypothesis which I am entitled to assume; a more complete conception, with regard to another world and to the cause of the world, might then be justly required of me than I am, in reality, able to give. For, if I assume anything, even as a mere hypothesis, I must, at least, know so much of the properties of such a being as will enable me, not to form the conception, but to imagine the existence of it. But the word belief refers only to the guidance which an idea gives me, and to its subjective influence on the conduct of my reason, which forces me to hold it fast, though I may not be in a position to give a speculative account of it.

But mere doctrinal belief is, to some extent, wanting in stability. We often quit our hold of it, in consequence of the difficulties which occur in speculation, though in the end we inevitably return to it again.

It is quite otherwise with moral belief. For in this sphere action is absolutely necessary, that is, I must act in obedience to the moral law in all points. The end is here incontrovertibly established, and there is only one condition possible, according to the best of my perception, under which this end can harmonize with all other ends, and so have practical validity- namely, the existence of a God and of a future world. I know also, to a certainty, that no one can be acquainted with any other conditions which conduct to the same unity of ends under the moral law. But since the moral precept is, at the same time, my maxim (as reason requires that it should be), I am irresistibly constrained to believe in the existence of God and in a future life; and I am sure that nothing can make me waver in this belief, since I should thereby overthrow my moral maxims, the renunciation of which would render me hateful in my own eyes.

Thus, while all the ambitious attempts of reason to penetrate beyond the limits of experience end in disappointment, there is still enough left to satisfy us in a practical point of view. No one, it

is true, will be able to boast that he knows that there is a God and a future life; for, if he knows this, he is just the man whom I have long wished to find. All knowledge, regarding an object of mere reason, can be communicated; and I should thus be enabled to hope that my own knowledge would receive this wonderful extension, through the instrumentality of his instruction. No, my conviction is not logical, but moral certainty; and since it rests on subjective grounds (of the moral sentiment), I must not even say: It is morally certain that there is a God, etc., but: I am morally certain, that is, my belief in God and in another world is so interwoven with my moral nature that I am under as little apprehension of having the former torn from me as of losing the latter.

The only point in this argument that may appear open to suspicion is that this rational belief presupposes the existence of moral sentiments. If we give up this assumption, and take a man who is entirely indifferent with regard to moral laws, the question which reason proposes, becomes then merely a problem for speculation and may, indeed, be supported by strong grounds from analogy, but not by such as will compel the most obstinate scepticism to give way.* But in these questions no man is free from all interest. For though the want of good sentiments may place him beyond the influence of moral interests, still even in this case enough may be left to make him fear the existence of God and a future life. For he cannot pretend to any certainty of the non-existence of God and of a future life, unless- since it could only be proved by mere reason, and therefore apodeictically- he is prepared to establish the impossibility of both, which certainly no reasonable man would undertake to do. This would be a negative belief, which could not, indeed, produce morality and good sentiments, but still could produce an analogon of these, by operating as a powerful restraint on the outbreak of evil dispositions.

*The human mind (as, I believe, every rational being must of necessity do) takes a natural interest in morality, although this interest is not undivided, and may not be practically in preponderance. If you strengthen and increase it, you will find the reason become docile, more enlightened, and more capable of uniting the speculative interest with the practical. But if you do not take care at the outset, or at least midway, to make men good, you will never force them into an honest belief.

But, it will be said, is this all that pure reason can effect, in opening up prospects beyond the limits of experience? Nothing more than two articles of belief? Common sense could have done as much as this, without taking the philosophers to counsel in the matter!

I shall not here eulogize philosophy for the benefits which the laborious efforts of its criticism have conferred on human reason- even granting that its merit should turn out in the end to be only negative- for on this point something more will be said in the next section. But, I ask, do you require that that knowledge which concerns all men, should transcend the common understanding, and should only be revealed to you by philosophers? The very circumstance which has called forth your censure, is the best confirmation of the correctness of our previous assertions, since it discloses, what could not have been foreseen, that Nature is not chargeable with any partial distribution of her gifts in those matters which concern all men without distinction and that, in respect to the essential ends of human nature, we cannot advance further with the help of the highest philosophy, than under the guidance which nature has vouchsafed to the meanest understanding.

CHAPTER III. The Architectonic of Pure Reason.

By the term architectonic I mean the art of constructing a system. Without systematic unity, our knowledge cannot become science; it will be an aggregate, and not a system. Thus architectonic is the doctrine of the scientific in cognition, and therefore necessarily forms part of our methodology.

Reason cannot permit our knowledge to remain in an unconnected and rhapsodistic state, but requires that the sum of our cognitions should constitute a system. It is thus alone that they can advance the ends of reason. By a system I mean the unity of various cognitions under one idea. This idea is the conception- given by reason- of the form of a whole, in so far as the conception determines a priori not only the limits of its content, but the place which each of its parts is to occupy. The scientific idea contains, therefore, the end and the form of the whole which is in accordance with that end. The unity of the end, to which all the parts of the system relate, and through which all have a relation to each other, communicates unity to the whole system, so that the absence of any part can be immediately detected from our knowledge of the rest; and it determines a priori the limits of the system, thus excluding all contingent or arbitrary additions. The whole is thus an organism (*articulatio*), and not an aggregate (*coacervatio*); it may grow from within (*per intussusceptionem*), but it cannot increase by external additions (*per appositionem*). It is, thus, like an animal body, the growth of which does not add any limb, but, without changing their proportions, makes each in its sphere stronger and more active.

We require, for the execution of the idea of a system, a schema, that is, a content and an arrangement of parts determined a priori by the principle which the aim of the system prescribes. A schema which is not projected in accordance with an idea, that is, from the standpoint of the highest aim of reason, but merely empirically, in accordance with accidental aims and purposes (the number of which cannot be predetermined), can give us nothing more than technical unity. But the schema which is originated from an idea (in which case reason presents us with aims a priori, and does not look for them to experience), forms the basis of architectonical unity. A science, in the proper acceptation of that term. cannot be formed technically, that is, from observation of the similarity existing between different objects, and the purely contingent use we make of our knowledge in concreto with reference to all kinds of arbitrary external aims; its constitution must be framed on architectonical principles, that is, its parts must be shown to possess an essential affinity, and be capable of being deduced from one supreme and internal aim or end, which forms the condition of the possibility of the scientific whole. The schema of a science must give a priori the plan of it (*monogramma*), and the division of the whole into parts, in conformity with the idea of the science; and it must also distinguish this whole from all others, according to certain understood principles.

No one will attempt to construct a science, unless he have some idea to rest on as a proper basis. But, in the elaboration of the science, he finds that the schema, nay, even the definition which he at first gave of the science, rarely corresponds with his idea; for this idea lies, like a germ, in our reason, its parts undeveloped and hid even from microscopical observation. For this reason, we ought to explain and define sciences, not according to the description which the originator gives of them, but according to the idea which we find based in reason itself, and which is suggested by the natural unity of the parts of the science already accumulated. For it will

of ten be found that the originator of a science and even his latest successors remain attached to an erroneous idea, which they cannot render clear to themselves, and that they thus fail in determining the true content, the articulation or systematic unity, and the limits of their science.

It is unfortunate that, only after having occupied ourselves for a long time in the collection of materials, under the guidance of an idea which lies undeveloped in the mind, but not according to any definite plan of arrangement- nay, only after we have spent much time and labour in the technical disposition of our materials, does it become possible to view the idea of a science in a clear light, and to project, according to architectural principles, a plan of the whole, in accordance with the aims of reason. Systems seem, like certain worms, to be formed by a kind of generatio aequivoca- by the mere confluence of conceptions, and to gain completeness only with the progress of time. But the schema or germ of all lies in reason; and thus is not only every system organized according to its own idea, but all are united into one grand system of human knowledge, of which they form members. For this reason, it is possible to frame an architectonic of all human cognition, the formation of which, at the present time, considering the immense materials collected or to be found in the ruins of old systems, would not indeed be very difficult. Our purpose at present is merely to sketch the plan of the architectonic of all cognition given by pure reason; and we begin from the point where the main root of human knowledge divides into two, one of which is reason. By reason I understand here the whole higher faculty of cognition, the rational being placed in contradistinction to the empirical.

If I make complete abstraction of the content of cognition, objectively considered, all cognition is, from a subjective point of view, either historical or rational. Historical cognition is *cognitio ex datis*, rational, *cognitio ex principiis*. Whatever may be the original source of a cognition, it is, in relation to the person who possesses it, merely historical, if he knows only what has been given him from another quarter, whether that knowledge was communicated by direct experience or by instruction. Thus the Person who has learned a system of philosophy- say the Wolfian- although he has a perfect knowledge of all the principles, definitions, and arguments in that philosophy, as well as of the divisions that have been made of the system, possesses really no more than an historical knowledge of the Wolfian system; he knows only what has been told him, his judgements are only those which he has received from his teachers. Dispute the validity of a definition, and he is completely at a loss to find another. He has formed his mind on another's; but the imitative faculty is not the productive. His knowledge has not been drawn from reason; and although, objectively considered, it is rational knowledge, subjectively, it is merely historical. He has learned this or that philosophy and is merely a plaster cast of a living man. Rational cognitions which are objective, that is, which have their source in reason, can be so termed from a subjective point of view, only when they have been drawn by the individual himself from the sources of reason, that is, from principles; and it is in this way alone that criticism, or even the rejection of what has been already learned, can spring up in the mind.

All rational cognition is, again, based either on conceptions, or on the construction of conceptions. The former is termed philosophical, the latter mathematical. I have already shown the essential difference of these two methods of cognition in the first chapter. A cognition may be objectively philosophical and subjectively historical- as is the case with the majority of scholars and those who cannot look

beyond the limits of their system, and who remain in a state of pupilage all their lives. But it is remarkable that mathematical knowledge, when committed to memory, is valid, from the subjective point of view, as rational knowledge also, and that the same distinction cannot be drawn here as in the case of philosophical cognition. The reason is that the only way of arriving at this knowledge is through the essential principles of reason, and thus it is always certain and indisputable; because reason is employed in concreto- but at the same time a priori- that is, in pure and, therefore, infallible intuition; and thus all causes of illusion and error are excluded. Of all the a priori sciences of reason, therefore, mathematics alone can be learned. Philosophy- unless it be in an historical manner- cannot be learned; we can at most learn to philosophize.

Philosophy is the system of all philosophical cognition. We must use this term in an objective sense, if we understand by it the archetype of all attempts at philosophizing, and the standard by which all subjective philosophies are to be judged. In this sense, philosophy is merely the idea of a possible science, which does not exist in concreto, but to which we endeavour in various ways to approximate, until we have discovered the right path to pursue- a path overgrown by the errors and illusions of sense- and the image we have hitherto tried in vain to shape has become a perfect copy of the great prototype. Until that time, we cannot learn philosophy- it does not exist; if it does, where is it, who possesses it, and how shall we know it? We can only learn to philosophize; in other words, we can only exercise our powers of reasoning in accordance with general principles, retaining at the same time, the right of investigating the sources of these principles, of testing, and even of rejecting them.

Until then, our conception of philosophy is only a scholastic conception- a conception, that is, of a system of cognition which we are trying to elaborate into a science; all that we at present know being the systematic unity of this cognition, and consequently the logical completeness of the cognition for the desired end. But there is also a cosmical conception (*conceptus cosmicus*) of philosophy, which has always formed the true basis of this term, especially when philosophy was personified and presented to us in the ideal of a philosopher. In this view philosophy is the science of the relation of all cognition to the ultimate and essential aims of human reason (*teleologia rationis humanae*), and the philosopher is not merely an artist- who occupies himself with conceptions- but a lawgiver, legislating for human reason. In this sense of the word, it would be in the highest degree arrogant to assume the title of philosopher, and to pretend that we had reached the perfection of the prototype which lies in the idea alone.

The mathematician, the natural philosopher, and the logician- how far soever the first may have advanced in rational, and the two latter in philosophical knowledge- are merely artists, engaged in the arrangement and formation of conceptions; they cannot be termed philosophers. Above them all, there is the ideal teacher, who employs them as instruments for the advancement of the essential aims of human reason. Him alone can we call philosopher; but he nowhere exists. But the idea of his legislative power resides in the mind of every man, and it alone teaches us what kind of systematic unity philosophy demands in view of the ultimate aims of reason. This idea is, therefore, a cosmical conception.*

*By a cosmical conception, I mean one in which all men necessarily take an interest; the aim of a science must accordingly be

determined according to scholastic conceptions, if it is regarded merely as a means to certain arbitrarily proposed ends.

In view of the complete systematic unity of reason, there can only be one ultimate end of all the operations of the mind. To this all other aims are subordinate, and nothing more than means for its attainment. This ultimate end is the destination of man, and the philosophy which relates to it is termed moral philosophy. The superior position occupied by moral philosophy, above all other spheres for the operations of reason, sufficiently indicates the reason why the ancients always included the idea- and in an especial manner- of moralist in that of philosopher. Even at the present day, we call a man who appears to have the power of self-government, even although his knowledge may be very limited, by the name of philosopher.

The legislation of human reason, or philosophy, has two objects- nature and freedom- and thus contains not only the laws of nature, but also those of ethics, at first in two separate systems, which, finally, merge into one grand philosophical system of cognition. The philosophy of nature relates to that which is, that of ethics to that which ought to be.

But all philosophy is either cognition on the basis of pure reason, or the cognition of reason on the basis of empirical principles. The former is termed pure, the latter empirical philosophy.

The philosophy of pure reason is either propaedeutic, that is, an inquiry into the powers of reason in regard to pure a priori cognition, and is termed critical philosophy; or it is, secondly, the system of pure reason- a science containing the systematic presentation of the whole body of philosophical knowledge, true as well as illusory, given by pure reason- and is called metaphysic. This name may, however, be also given to the whole system of pure philosophy, critical philosophy included, and may designate the investigation into the sources or possibility of a priori cognition, as well as the presentation of the a priori cognitions which form a system of pure philosophy- excluding, at the same time, all empirical and mathematical elements.

Metaphysic is divided into that of the speculative and that of the practical use of pure reason, and is, accordingly, either the metaphysic of nature, or the metaphysic of ethics. The former contains all the pure rational principles- based upon conceptions alone (and thus excluding mathematics)- of all theoretical cognition; the latter, the principles which determine and necessitate a priori all action. Now moral philosophy alone contains a code of laws- for the regulation of our actions- which are deduced from principles entirely a priori. Hence the metaphysic of ethics is the only pure moral philosophy, as it is not based upon anthropological or other empirical considerations. The metaphysic of speculative reason is what is commonly called metaphysic in the more limited sense. But as pure moral philosophy properly forms a part of this system of cognition, we must allow it to retain the name of metaphysic, although it is not requisite that we should insist on so terming it in our present discussion.

It is of the highest importance to separate those cognitions which differ from others both in kind and in origin, and to take great care that they are not confounded with those with which they are generally found connected. What the chemist does in the analysis of substances, what the mathematician in pure mathematics, is, in a still higher degree, the duty of the philosopher, that the value of each different kind of cognition, and the part it takes in the operations

of the mind, may be clearly defined. Human reason has never wanted a metaphysic of some kind, since it attained the power of thought, or rather of reflection; but it has never been able to keep this sphere of thought and cognition pure from all admixture of foreign elements. The idea of a science of this kind is as old as speculation itself; and what mind does not speculate- either in the scholastic or in the popular fashion? At the same time, it must be admitted that even thinkers by profession have been unable clearly to explain the distinction between the two elements of our cognition- the one completely a priori, the other a posteriori; and hence the proper definition of a peculiar kind of cognition, and with it the just idea of a science which has so long and so deeply engaged the attention of the human mind, has never been established. When it was said: "Metaphysic is the science of the first principles of human cognition," this definition did not signalize a peculiarity in kind, but only a difference in degree; these first principles were thus declared to be more general than others, but no criterion of distinction from empirical principles was given. Of these some are more general, and therefore higher, than others; and- as we cannot distinguish what is completely a priori from that which is known to be a posteriori- where shall we draw the line which is to separate the higher and so-called first principles, from the lower and subordinate principles of cognition? What would be said if we were asked to be satisfied with a division of the epochs of the world into the earlier centuries and those following them? "Does the fifth, or the tenth century belong to the earlier centuries?" it would be asked. In the same way I ask: Does the conception of extension belong to metaphysics? You answer, "Yes." Well, that of body too? "Yes." And that of a fluid body? You stop, you are unprepared to admit this; for if you do, everything will belong to metaphysics. From this it is evident that the mere degree of subordination- of the particular to the general- cannot determine the limits of a science; and that, in the present case, we must expect to find a difference in the conceptions of metaphysics both in kind and in origin. The fundamental idea of metaphysics was obscured on another side by the fact that this kind of a priori cognition showed a certain similarity in character with the science of mathematics. Both have the property in common of possessing an a priori origin; but, in the one, our knowledge is based upon conceptions, in the other, on the construction of conceptions. Thus a decided dissimilarity between philosophical and mathematical cognition comes out- a dissimilarity which was always felt, but which could not be made distinct for want of an insight into the criteria of the difference. And thus it happened that, as philosophers themselves failed in the proper development of the idea of their science, the elaboration of the science could not proceed with a definite aim, or under trustworthy guidance. Thus, too, philosophers, ignorant of the path they ought to pursue and always disputing with each other regarding the discoveries which each asserted he had made, brought their science into disrepute with the rest of the world, and finally, even among themselves.

All pure a priori cognition forms, therefore, in view of the peculiar faculty which originates it, a peculiar and distinct unity; and metaphysic is the term applied to the philosophy which attempts to represent that cognition in this systematic unity. The speculative part of metaphysic, which has especially appropriated this appellation- that which we have called the metaphysic of nature- and which considers everything, as it is (not as it ought to be), by means of a priori conceptions, is divided in the following manner.

Metaphysic, in the more limited acceptance of the term, consists of

two parts- transcendental philosophy and the physiology of pure reason. The former presents the system of all the conceptions and principles belonging to the understanding and the reason, and which relate to objects in general, but not to any particular given objects (Ontologia); the latter has nature for its subject-matter, that is, the sum of given objects- whether given to the senses, or, if we will, to some other kind of intuition- and is accordingly physiology, although only rationalis. But the use of the faculty of reason in this rational mode of regarding nature is either physical or hyperphysical, or, more properly speaking, immanent or transcendent. The former relates to nature, in so far as our knowledge regarding it may be applied in experience (in concreto); the latter to that connection of the objects of experience, which transcends all experience. Transcendent physiology has, again, an internal and an external connection with its object, both, however, transcending possible experience; the former is the physiology of nature as a whole, or transcendental cognition of the world, the latter of the connection of the whole of nature with a being above nature, or transcendental cognition of God.

Immanent physiology, on the contrary, considers nature as the sum of all sensuous objects, consequently, as it is presented to us- but still according to a priori conditions, for it is under these alone that nature can be presented to our minds at all. The objects of immanent physiology are of two kinds: 1. Those of the external senses, or corporeal nature; 2. The object of the internal sense, the soul, or, in accordance with our fundamental conceptions of it, thinking nature. The metaphysics of corporeal nature is called physics; but, as it must contain only the principles of an a priori cognition of nature, we must term it rational physics. The metaphysics of thinking nature is called psychology, and for the same reason is to be regarded as merely the rational cognition of the soul.

Thus the whole system of metaphysics consists of four principal parts: 1. Ontology; 2. Rational Physiology; 3. Rational cosmology; and 4. Rational theology. The second part- that of the rational doctrine of nature- may be subdivided into two, *physica rationalis** and *psychologia rationalis*.

*It must not be supposed that I mean by this appellation what is generally called *physica generalis*, and which is rather mathematics than a philosophy of nature. For the metaphysic of nature is completely different from mathematics, nor is it so rich in results, although it is of great importance as a critical test of the application of pure understanding-cognition to nature. For want of its guidance, even mathematicians, adopting certain common notions- which are, in fact, metaphysical- have unconsciously crowded their theories of nature with hypotheses, the fallacy of which becomes evident upon the application of the principles of this metaphysic, without detriment, however, to the employment of mathematics in this sphere of cognition.

The fundamental idea of a philosophy of pure reason of necessity dictates this division; it is, therefore, architectonical- in accordance with the highest aims of reason, and not merely technical, or according to certain accidentally-observed similarities existing between the different parts of the whole science. For this reason, also, is the division immutable and of legislative authority. But the reader may observe in it a few points to which he ought to demur, and which may weaken his conviction of its truth and legitimacy.

In the first place, how can I desire an a priori cognition or

metaphysic of objects, in so far as they are given a posteriori? and how is it possible to cognize the nature of things according to a priori principles, and to attain to a rational physiology? The answer is this. We take from experience nothing more than is requisite to present us with an object (in general) of the external or of the internal sense; in the former case, by the mere conception of matter (impenetrable and inanimate extension), in the latter, by the conception of a thinking being- given in the internal empirical representation, I think. As to the rest, we must not employ in our metaphysic of these objects any empirical principles (which add to the content of our conceptions by means of experience), for the purpose of forming by their help any judgements respecting these objects.

Secondly, what place shall we assign to empirical psychology, which has always been considered a part of metaphysics, and from which in our time such important philosophical results have been expected, after the hope of constructing an a priori system of knowledge had been abandoned? I answer: It must be placed by the side of empirical physics or physics proper; that is, must be regarded as forming a part of applied philosophy, the a priori principles of which are contained in pure philosophy, which is therefore connected, although it must not be confounded, with psychology. Empirical psychology must therefore be banished from the sphere of metaphysics, and is indeed excluded by the very idea of that science. In conformity, however, with scholastic usage, we must permit it to occupy a place in metaphysics- but only as an appendix to it. We adopt this course from motives of economy; as psychology is not as yet full enough to occupy our attention as an independent study, while it is, at the same time, of too great importance to be entirely excluded or placed where it has still less affinity than it has with the subject of metaphysics. It is a stranger who has been long a guest; and we make it welcome to stay, until it can take up a more suitable abode in a complete system of anthropology- the pendant to empirical physics.

The above is the general idea of metaphysics, which, as more was expected from it than could be looked for with justice, and as these pleasant expectations were unfortunately never realized, fell into general disrepute. Our Critique must have fully convinced the reader that, although metaphysics cannot form the foundation of religion, it must always be one of its most important bulwarks, and that human reason, which naturally pursues a dialectical course, cannot do without this science, which checks its tendencies towards dialectic and, by elevating reason to a scientific and clear self-knowledge, prevents the ravages which a lawless speculative reason would infallibly commit in the sphere of morals as well as in that of religion. We may be sure, therefore, whatever contempt may be thrown upon metaphysics by those who judge a science not by its own nature, but according to the accidental effects it may have produced, that it can never be completely abandoned, that we must always return to it as to a beloved one who has been for a time estranged, because the questions with which it is engaged relate to the highest aims of humanity, and reason must always labour either to attain to settled views in regard to these, or to destroy those which others have already established.

Metaphysic, therefore- that of nature, as well as that of ethics, but in an especial manner the criticism which forms the propaedeutic to all the operations of reason- forms properly that department of knowledge which may be termed, in the truest sense of the word, philosophy. The path which it pursues is that of science, which, when it has once been discovered, is never lost, and never misleads. Mathematics, natural science, the common experience of men, have a high value as means, for the most part, to accidental ends- but at

last also, to those which are necessary and essential to the existence of humanity. But to guide them to this high goal, they require the aid of rational cognition on the basis of pure conceptions, which, be it termed as it may, is properly nothing but metaphysics.

For the same reason, metaphysics forms likewise the completion of the culture of human reason. In this respect, it is indispensable, setting aside altogether the influence which it exerts as a science. For its subject-matter is the elements and highest maxims of reason, which form the basis of the possibility of some sciences and of the use of all. That, as a purely speculative science, it is more useful in preventing error than in the extension of knowledge, does not detract from its value; on the contrary, the supreme office of censor which it occupies assures to it the highest authority and importance. This office it administers for the purpose of securing order, harmony, and well-being to science, and of directing its noble and fruitful labours to the highest possible aim- the happiness of all mankind.

CHAPTER IV. The History of Pure Reason.

This title is placed here merely for the purpose of designating a division of the system of pure reason of which I do not intend to treat at present. I shall content myself with casting a cursory glance, from a purely transcendental point of view- that of the nature of pure reason- on the labours of philosophers up to the present time. They have aimed at erecting an edifice of philosophy; but to my eye this edifice appears to be in a very ruinous condition.

It is very remarkable, although naturally it could not have been otherwise, that, in the infancy of philosophy, the study of the nature of God and the constitution of a future world formed the commencement, rather than the conclusion, as we should have it, of the speculative efforts of the human mind. However rude the religious conceptions generated by the remains of the old manners and customs of a less cultivated time, the intelligent classes were not thereby prevented from devoting themselves to free inquiry into the existence and nature of God; and they easily saw that there could be no surer way of pleasing the invisible ruler of the world, and of attaining to happiness in another world at least, than a good and honest course of life in this. Thus theology and morals formed the two chief motives, or rather the points of attraction in all abstract inquiries. But it was the former that especially occupied the attention of speculative reason, and which afterwards became so celebrated under the name of metaphysics.

I shall not at present indicate the periods of time at which the greatest changes in metaphysics took place, but shall merely give a hasty sketch of the different ideas which occasioned the most important revolutions in this sphere of thought. There are three different ends in relation to which these revolutions have taken place.

1. In relation to the object of the cognition of reason, philosophers may be divided into sensualists and intellectualists. Epicurus may be regarded as the head of the former, Plato of the latter. The distinction here signalized, subtle as it is, dates from the earliest times, and was long maintained. The former asserted that reality resides in sensuous objects alone, and that everything else is merely imaginary; the latter, that the senses are the parents of illusion and that truth is to be found in the understanding alone. The former did not deny to the conceptions of the understanding a certain kind of reality; but with them it was merely logical, with the others it was mystical. The former admitted intellectual conceptions, but declared that sensuous objects alone possessed real

existence. The latter maintained that all real objects were intelligible, and believed that the pure understanding possessed a faculty of intuition apart from sense, which, in their opinion, served only to confuse the ideas of the understanding.

2. In relation to the origin of the pure cognitions of reason, we find one school maintaining that they are derived entirely from experience, and another that they have their origin in reason alone. Aristotle may be regarded as the head of the empiricists, and Plato of the noologists. Locke, the follower of Aristotle in modern times, and Leibnitz of Plato (although he cannot be said to have imitated him in his mysticism), have not been able to bring this question to a settled conclusion. The procedure of Epicurus in his sensual system, in which he always restricted his conclusions to the sphere of experience, was much more consequent than that of Aristotle and Locke. The latter especially, after having derived all the conceptions and principles of the mind from experience, goes so far, in the employment of these conceptions and principles, as to maintain that we can prove the existence of God and the existence of God and the immortality of them objects lying beyond the soul- both of them of possible experience- with the same force of demonstration as any mathematical proposition.

3. In relation to method. Method is procedure according to principles. We may divide the methods at present employed in the field of inquiry into the naturalistic and the scientific. The naturalist of pure reason lays it down as his principle that common reason, without the aid of science- which he calls sound reason, or common sense- can give a more satisfactory answer to the most important questions of metaphysics than speculation is able to do. He must maintain, therefore, that we can determine the content and circumference of the moon more certainly by the naked eye, than by the aid of mathematical reasoning. But this system is mere misology reduced to principles; and, what is the most absurd thing in this doctrine, the neglect of all scientific means is paraded as a peculiar method of extending our cognition. As regards those who are naturalists because they know no better, they are certainly not to be blamed. They follow common sense, without parading their ignorance as a method which is to teach us the wonderful secret, how we are to find the truth which lies at the bottom of the well of Democritus.

Quod sapio satis est mihi, non ego curo Esse quod
Arcesilas aerumnosique Solones. PERSIUS*

is their motto, under which they may lead a pleasant and praise worthy life, without troubling themselves with science or troubling science with them.

*[Satirae, iii. 78-79. "What I know is enough for I don't care to be what Arcesilas was, and the wretched Solons."]

As regards those who wish to pursue a scientific method, they have now the choice of following either the dogmatical or the sceptical, while they are bound never to desert the systematic mode of procedure. When I mention, in relation to the former, the celebrated Wolf, and as regards the latter, David Hume, I may leave, in accordance with my present intention, all others unnamed. The critical path alone is still open. If my reader has been kind and patient enough to accompany me on this hitherto untravelled route, he can now judge whether, if he and others will contribute their exertions towards making this narrow footpath a high road of thought, that which many centuries have

failed to accomplish may not be executed before the close of the present- namely, to bring Reason to perfect contentment in regard to that which has always, but without permanent results, occupied her powers and engaged her ardent desire for knowledge.

-THE END-

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