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*The
Transcendental Dialectic
Second Book
Second Chapter
The antinomy of pure reason⁴⁴*

We have shown in the introduction to this part of our work that every transcendental illusion of pure reason rests on dialectical inferences, whose schema is provided in general by logic in the three formal species of syllogisms, just as the categories find their logical schema in the four functions of all judgments. The **first species of these** sophistical inferences had to do with the unconditioned unity of the **subjective** conditions of all representations in general (of the subject or the soul), corresponding to the **categorical** syllogisms, whose major premise, as a principle,^a states the relation of a predicate to a **subject**. Thus the **second species** of dialectical argument, by analogy with **hypothetical** syllogisms, will make the unconditioned unity of objective conditions in appearance its content, just as the **third species**, which will come forward in the following chapter, has as its theme the unconditioned unity of objective conditions of the possibility of objects in general.

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It is remarkable, however, that the transcendental paralogism effects a merely one-sided illusion regarding the idea of the subject of our thought, and for the opposite assertion there is not the least plausibility^b forthcoming from concepts of reason. The advantage is entirely on the side of pneumatism, even though pneumatism cannot deny that radical defect through which its entire plausibility dissolves into mere haze when put to the fiery test of critique.⁴⁵

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It turns out wholly otherwise when we apply reason to the **objective synthesis** of appearances, where reason thinks to make its principle^c of unconditioned unity valid with much plausibility;^d but it soon finds it-

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^a *Princip*

^b *Schein*

^c *Principium*

^d *zwar mit vielem Scheine*

self involved in such contradictions that it is compelled to relinquish its demands in regard to cosmology.

B434 Here a new phenomenon of human reason shows itself, namely a wholly natural antithetic, for which one does not need to ponder or to lay artificial snares, but rather into which reason falls of itself and even unavoidably; and thus it guards reason against the slumber of an imagined conviction, such as a merely one-sided illusion produces, but at the same time leads reason into the temptation either to surrender itself to a skeptical hopelessness or else to assume an attitude of dogmatic stubbornness, setting its mind rigidly to certain assertions without giving a fair hearing to the grounds for the opposite. Either alternative is the death of a healthy philosophy, though the former might also be called the **euthanasia** of pure reason.

A408 Before we allow the divisions and dissensions occasioned by this contradiction in the laws (antinomy) of pure reason to make their entrance, we will offer certain elucidations that can classify and justify the method we will employ in treating our subject matter. I call all transcendental ideas, insofar as they concern absolute totality in the synthesis of appearances, **world-concepts**,⁴⁶ partly because of the unconditioned totality on which the concept of the world-whole also rests even though it is only an idea, and partly because they have to do merely with the synthesis of appearances, and hence with the empirical, whereas the absolute totality of the synthesis of the condition of all possible things in general will occasion an ideal of pure reason, which is wholly distinct from the world-concept, even though it stands in relation to it. Hence just as the paralogism of pure reason laid the ground for a dialectical psychology, so the antinomy of pure reason will put before our eyes the transcendental principles of an alleged pure (rational) cosmology, yet not in order to find it valid and to appropriate it, but rather, as is already indicated by terming it a contradiction of reason, in order to display it in its dazzling but false plausibility^a as an idea that cannot be made to agree with appearances.

The
Antinomy of Pure Reason
First Section
The system of cosmological ideas.

A409 Now in order to be able to enumerate these ideas with systematic precision according to a principle,^b we must first note that it is only from the understanding that pure and transcendental concepts can arise, that reason really cannot generate any concept at all, but can at most only free a **concept of the understanding** from the unavoidable limitations

^a *Schein*

^b *Princip*

of a possible experience, and thus seek to extend it beyond the boundaries of the empirical, though still in connection with it. This happens when for a given conditioned reason demands an absolute totality on the side of the conditions (under which the understanding subjects all appearances to synthetic unity), thereby making the category into a transcendental idea, in order to give absolute completeness to the empirical synthesis through its progress toward the unconditioned (which is never met with in experience, but only in the idea). Reason demands this in accordance with the principle: **If the conditioned is given, then the whole sum of conditions, and hence the absolutely unconditioned, is also given**, through which alone the conditioned was possible.⁴⁷ Thus **first**, the transcendental ideas will really be nothing except categories extended to the unconditioned, and the former may be brought into a table ordered according to the headings of the latter. **Second**, however, not all categories will work here, but only those in which the synthesis constitutes a **series**, and indeed a series of conditions subordinated (not coordinated) one to another for any conditioned. Absolute totality is demanded by reason only insofar as reason is concerned with the ascending series of conditions for a given conditioned, hence not when dealing with the descending line of consequences, nor with the aggregate of coordinated conditions for these consequences. For in regard to the given conditioned, conditions are regarded as already presupposed and given along with the conditioned; whereas, since the consequences do not make their conditions possible, but rather presuppose them, in proceeding to the consequences (or in descending from a given condition to the conditioned) one remains untroubled about whether or not in general the series stops, and the question about its totality is not at all a presupposition of reason.

Thus one necessarily thinks of the fully elapsed time up to the present moment as also given (even if not as determinable by us). But as to the future, since it is not a condition for attaining to the present, it is a matter of complete indifference for comprehending the present what we want to hold about future time, whether it stops somewhere or runs on to infinity. Let there be a series *m, n, o*, in which *n* is given as conditioned in respect of *m*, but at the same time as the condition of *o*, and the series ascends from the conditioned *n* to *m* (*l, k, j*, etc.); then I must presuppose the first series in order to regard *n* as given, and *n* is possible in accordance with reason (with the totality of conditions) only by means of that series; but its possibility does not rest on the subsequent series *o, p, q, r*; which therefore cannot^a be regarded as given, but only as *dabilis*.^b

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^a *nicht . . . könne*. The fourth edition changes from the present to the imperfect subjunctive, reading "*nicht . . . konnte*" (could not).

^b capable of being given

I will call the synthesis of a series on the side of the conditions, thus proceeding from the condition proximate to the given appearance toward the more remote conditions, the **regressive** synthesis, and the synthesis proceeding on the side of the conditioned, from its proximate consequence to the more remote ones, the **progressive** synthesis. The first proceeds *in antecedentia*,^a the second *in consequentia*.^b Thus the cosmological ideas are concerned with the totality of the regressive synthesis, and go *in antecedentia*, not *in consequentia*. If this latter happens, then that is an arbitrary and not a necessary problem of pure reason, because for the complete comprehensibility of what is given in appearance we need its grounds but not its consequences.

Now in order to set up a table of ideas according to the table of categories, we first take the two original *quanta* of all intuition, space and time. Time is in itself a series (and the formal condition of all series), and hence in it, in regard to a given present, the *antecedentia* are to be distinguished *a priori* as conditions (the past) from the *consequentia*^c (the future). Consequently, the transcendental idea of an absolute totality of the series of conditions for a given conditioned applies only to all past time. According to the idea of reason, the whole elapsed past time is thought of as given necessarily as the condition for the given moment. But as for space, in it there is no difference between progress and regress, because it constitutes an **aggregate**, but **not a series**, since all its parts exist simultaneously. I could regard the present point in time only as conditioned in regard to past time but never as its condition, because this moment first arises only through the time that has passed (or rather through the passing of the preceding time). But since the parts of space are not subordinated to one another but are coordinated with one another, one part is not the condition of the possibility of another, and space, unlike time, does not in itself constitute a series. Yet the synthesis of the manifold parts of space, through which we apprehend it, is nevertheless successive, and thus occurs in time and contains a series.⁴⁸ And since in this series of aggregated spaces of a given space (e.g., the feet in a rod), the further spaces, starting with a given one, are each thought of as the **condition of the boundaries** of the previous ones, the **measurement** of a space is to be regarded as a synthesis of a series of conditions for a given conditioned; only the side of the conditions is not in itself distinguished from the side lying beyond the conditioned, consequently *regressus* and *progressus* in space appear to be one and the same.⁴⁹ Nonetheless, because a part of space is not given through an-

^a toward antecedents

^b toward consequents

^c In Kant's text, this word is given in the ablative (*consequentiibus*); when Kant uses Latin nouns he declines them as if he were writing the whole context in Latin.

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other part but is only bounded by it, we must to that extent regard every bounded space as also conditioned, presupposing another space as the condition of its boundary, and so forth. Thus regarding boundedness, the progression is also a regress, and the transcendental idea of the absolute totality of a synthesis in the series of conditions also applies to space, and I can ask about the absolute totality of appearances in space as well as in past time. But whether an answer to any of these questions is possible will be determined in the future.

Second, reality in space, i.e., **matter**, is likewise something conditioned, whose inner conditions are its parts, and the parts of those parts are the remote conditions, so that there occurs here a regressive synthesis, whose absolute totality reason demands; and that cannot occur otherwise than through a complete division, in which the reality of matter disappears either into nothing or else into that which is no longer matter, namely the simple.⁵⁰ Consequently here too there is a series of conditions and a progress toward the unconditioned.

Third, as far as the categories of real relation among appearances are concerned, the category of substance and its accidents is not suited to a transcendental idea, i.e., in regard to this category reason has no ground to proceed regressively toward conditions. For accidents (insofar as they inhere in a single substance) are coordinated with one another, and do not constitute a series. In regard to substance, however, they are not really subordinated to it, but are rather the way substance itself exists. What might still seem to be an idea of transcendental reason here would be the concept of the **substantial**. Only since this signifies nothing other than the concept of a subsisting object in general, insofar as one thinks in it merely the transcendental subject without any predicates, but here only the unconditioned in a series of appearances is under discussion, it is clear that the substantial cannot constitute a member of that.⁵¹ The same holds for substances in community, which are mere aggregates and have no exponents of a series, since they are not subordinated to one another as conditions of their possibility, which one could very well have said about spaces, whose boundaries were never determined in themselves, but always through another space. Thus there remains only the category of **causality**, which provides a series of causes for a given effect, in which one can ascend from the effect as the conditioned to the causes as conditions, and answer the question of reason.⁵²

Fourth, the concepts of the possible, actual, and necessary lead to no series, except only insofar as the **contingent** in existence always has to be seen as conditioned and refers in accordance with the rule of the understanding to a condition under which it is necessary to refer this to a higher condition, until reason attains to unconditioned **necessity** only in the series in its totality.⁵³

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Substantial as bare particular?

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There are, accordingly, no more than four cosmological ideas, according to the four headings of the categories, if one selects those that necessarily carry with them a series in the synthesis of the manifold.

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I.

**The absolute completeness
of the
composition**

of a given whole of all appearances.^a

2.
The
**absolute
completeness
of the division
of a given whole
in appearance.**

3.
The
**absolute
completeness
of the arising
of an appearance in general.**

4.
The absolute completeness
of the **dependence of the existence**
of the alterable in appearance.^b

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The first thing to be noted here is that the idea of an absolute totality concerns nothing other than the exposition^c of **appearances**, hence it does not concern the understanding's pure concept of a whole of things in general. Thus appearances are considered here as given, and reason demands the absolute completeness of the conditions of their possibility, insofar as these conditions constitute a series, hence an absolutely (i.e., in all respects) complete synthesis, through which appearance could be expounded^d in accordance with laws of the understanding.

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Second, it is properly only the unconditioned that reason seeks in this synthesis of conditions, which proceeds serially, and indeed regressively, hence as it were the completeness in the series of premises that together presuppose no further premise. Now this **unconditioned** is always contained in the **absolute totality of the series** if one represents it in imagination. Yet this absolutely complete synthesis is once again only an idea; for with appearances one cannot know, at least not beforehand,

^a Added in Kant's copy: "‘Absolute totality’ signifies the totality of the manifold of a thing in itself and is something contradictory in respect of appearances as mere representations, which are to be encountered only in the progression, not outside it in themselves." (E CLXV, p. 49; 23:40)

^b Added in Kant's copy: "That there is no difficulty in thinking of the form of the world, i.e., of the *commencii* of substances as phenomena, for they are in space and time; but as noumena substances do not [have] existence, and the possibility of a world is not explainable. But if it is assumed, then more worlds are possible." (E CLXVI, pp. 49–50; 23:40)

^c *Exposition*

^d *exponiert*

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whether such a synthesis is even possible. If one represents everything through mere pure concepts of the understanding, without the conditions of sensible intuition, then one can say directly that for a given conditioned the whole series of conditions subordinated one to another is given; for the former is given only through the latter. But with appearances a special limitation is encountered in the way conditions are given, namely through the successive synthesis of the manifold of intuition, which is supposed to be complete in the regress. Now whether this completeness is sensibly possible is still a problem. Yet the idea of this completeness still lies in reason, irrespective of the possibility or impossibility of connecting empirical concepts to it adequately. Thus, since the unconditioned is necessarily contained in the absolute totality of the regressive synthesis of the manifold in appearance (following the categories, which represent appearance as a series of conditions for a given conditioned), one might also leave it undecided whether and how this totality is to be brought about; here reason thus takes the path of proceeding from the idea of a totality, even though it really has as its final intent the **unconditioned**, whether of the whole series or one part of it.

Now one can think of this unconditioned either as subsisting merely in the whole series, in which thus every member without exception is conditioned, and only their whole is absolutely unconditioned, or else the absolutely unconditioned is only a part of the series, to which the remaining members of the series are subordinated but that itself stands under no other condition.* In the first case the series is given *a parte priori* without bounds (without a beginning), i.e., it is given as infinite and at the same time whole, but the regress in it is never complete and can be called only *potentialiter^a* infinite. In the second case there is a first [member] in the series, which in regard to past time is called the **beginning of the world**, in regard to space and **boundary of the world**, in regard to the parts of a whole given in its bounds the **simple**, in regard to causes absolute **self-activity** (freedom), in regard to the existence of alterable things absolute **natural necessity**.

We have two expressions, **world** and **nature**, which are sometimes run together. The first signifies the mathematical whole of all appear-

* The absolute whole of the series of conditions for a given conditioned is always unconditioned, because outside it there are no more conditions regarding which it could be conditioned. But the absolute whole of such a series is only an idea, or rather a problematic concept, whose possibility has to be investigated, particularly in reference to the way in which the unconditioned may be contained in it as the properly transcendental idea that is at issue.

^a potentially

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ances and the totality of their synthesis in the great as well as in the small, i.e., in their progress through composition^a as well as through division. But the very same world is called nature* insofar as it is considered as a dynamic whole and one does not look at the aggregation in space or time so as to bring about a quantity, but looks instead at the unity in the **existence** of appearances. Now the condition of what happens is called the cause, and the unconditioned causality of the cause in appearance is called freedom; the conditioned cause in the narrower sense, on the contrary, is called the natural cause. The conditioned in existence in general is called contingent, and the unconditioned necessary. The unconditioned necessity of **appearances** can be called natural necessity.

Above I have called the ideas with which we are now concerned "cosmological ideas," partly because by "world" is understood the sum total of all appearances, and our ideas are also directed only toward the unconditioned among appearances, but partly too because in the transcendental sense the word "world" signifies the absolute totality of the sum total of existing things, and we are directing our attention only to

A420 the completeness of the synthesis (though properly only in the regress toward its conditions). Considering, moreover, that taken collectively these ideas are all transcendent and, even though they do not overstep the object,^b namely appearances, **in kind**, but have to do only with the sensible world (not with *noumena*),^c they nevertheless carry the synthesis to a **degree** that transcends all possible experience; thus in my opinion one can quite appropriately call them collectively **world-concepts**.

B448 In regard to the distinction between the mathematically and the dynamically unconditioned toward which the regress aims, I would call the first two world-concepts in a narrower sense (the world in great and

A418/B446 * "Nature" taken adjectively (*formaliter*)^d signifies the connection of determinations of a thing in accordance with an inner principle^e of causality. Conversely, by "nature" taken substantively (*materialiter*)^f is understood the sum total of appearances insofar as these are in thoroughgoing connection through an inner principle^g of causality. In the first sense one speaks of the "nature" of fluid matter, of fire, etc., and employs this word adjectively; conversely, if one talks about the "things of nature," then one has in mind a subsisting whole.

^a *Zusammensetzung*

^b *Object*

^c Kant declines the word in the Latin dative, as *Noumenis*.

^d formally

^e *Princip*

^f materially

^g *Princip*

Section II. The antithetic of pure reason

small), but the remaining two **transcendent concepts of nature**. Up to now this distinction has been of no particular relevance, but as we proceed it may become more important.

The Antinomy of Pure Reason Second Section Antithetic of pure reason.

If any sum total of dogmatic doctrines is a “thetic,” then by “antithetic” I understand not the dogmatic assertion of the opposite but rather the conflict between what seem to be dogmatic cognitions (*thesin cum antithesi*),^a without the ascription of a preeminent claim to approval of one side or the other. Thus an antithetic does not concern itself with one-sided assertions, but considers only the conflict between general cognitions of reason and the causes of this conflict. The transcendental antithetic is an investigation into the antinomy of pure reason, its causes and its result. If in using principles of the understanding we apply our reason not merely to objects of experience, for the use of principles of understanding, but instead venture also to extend these principles beyond the boundaries of experience, then there arise **sophistical theorems**,^b which may neither hope for confirmation in experience nor fear refutation by it; and each of them is not only without contradiction in itself but even meets with conditions of its necessity in the nature of reason itself, only unfortunately the opposite has on its side equally valid and necessary grounds for its assertion.

The questions that are naturally presented by such a dialectic of pure reason are these: 1. In which propositions is pure reason inevitably really subjected to an antinomy? 2. On what causes does this antinomy rest? 3. In what way, if any, given this contradiction, does a path to certainty nevertheless remain open to reason?

A dialectical theorem of pure reason must accordingly have the following feature, distinguishing it from all **sophistical**^c propositions: it does not concern an arbitrary question that one might raise only at one's option, but one that every human reason must necessarily come up against in the course of its progress; and second, this proposition and its opposite must carry with them not merely an artificial illusion that disappears as soon as someone has insight into it, but rather a natural and unavoidable illusion, which even if one is no longer fooled by it,

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^a “thesis with antithesis.” The correct Latin would be *thesis*; Kant does not seem to have made up his mind whether the phrase is supposed to be in Latin or in Greek.

^b *vernünftelnde Lehrsätze*

^c *sophistischen*

still deceives though it does not defraud and which thus can be rendered harmless but never destroyed.

Such a dialectical doctrine will relate not to the unity of understanding in concepts of experience, but to the unity of reason in mere ideas, whose conditions, since, as a synthesis according to rules, must first be congruent with the understanding, and yet at the same time, as the absolute unity of this synthesis, must be congruent with reason, will be too large for the understanding if this unity is to be adequate to the unity of reason, and yet too small for reason if they are suited to the understanding; from this there must arise a contradiction that cannot be avoided no matter how one may try.

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These sophistical^a assertions thus open up a dialectical battlefield, where each party will keep the upper hand as long as it is allowed to attack, and will certainly defeat that which is compelled to conduct itself^b merely defensively. Hence hardy knights, whether they support the good or the bad cause, are certain of carrying away the laurels of victory if only they take care to have the prerogative of making the last attack, and are not bound to resist a new assault from the opponent. One can easily imagine that from time immemorial this arena has often been entered, both sides gaining many victories, but that each time the final victory was decisive merely because care was taken that the champion of the good cause held the field alone, his opponent having been forbidden to take up his weapons again. As impartial referees we have to leave entirely aside whether it is a good or a bad cause for which the combatants are fighting, and just let them settle the matter themselves. Perhaps after they have exhausted rather than injured each other, they will see on their own that their dispute is nugatory, and part as good friends.

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This method of watching or even occasioning a contest between assertions, not in order to decide it to the advantage of one party or the other, but to investigate whether the object of the dispute is not perhaps a mere mirage^c at which each would snatch in vain without being able to gain anything even if he met with no resistance – this procedure, I say, can be called the **skeptical method**. It is entirely different from **skepticism**, a principle of artful^d and scientific ignorance that undermines the foundations of all cognition, in order, if possible, to leave no reliability or certainty anywhere. For the skeptical method aims at certainty, seeking to discover the point of misunderstanding in disputes that are honestly intended and conducted with intelligence by both

^a *vermünftelnden*

^b *verfahren*; in the first edition, the word is *föhren* (carry on).

^c *Blendwerk*

^d *kunstmäßig*

Section II. The antithetic of pure reason

sides, in order to do as wise legislators do when from the embarrassment of judges in cases of litigation they draw instruction concerning that which is defective and imprecisely determined in their laws. The antinomy that reveals itself in the application of the law is for our limited wisdom the best way to test nomothetics,^a in order to make reason, which does not easily become aware of its false steps in abstract speculation, attentive to the moments involved in determining its principles.

This skeptical method, however, is essentially suited only to transcendental philosophy, and can in any case be dispensed with in every other field of investigation, but not in this one. In mathematics its use would be absurd, because nowhere in mathematics do false assertions disguise themselves and make themselves invisible; for mathematical proofs always have to proceed along the lines of pure intuition, and indeed always through a self-evident synthesis. In experimental philosophy a doubt postponing judgment can be useful, but at least there is no possible misunderstanding that cannot be easily removed, and the ultimate means for deciding the controversy must at last lie in experience, whether it is found early or late. Morality can also give us its principles as a whole *in concreto*, along with their practical consequences in at least possible experiences, and thereby avoid misunderstandings due to abstraction. On the contrary, the transcendental assertions that presume to extend their insight beyond the field of all possible experience are neither in the case where their synthesis could be given in an *a priori* intuition, nor are they so constituted that a misunderstanding could be exposed by means of any experience. Transcendental reason thus permits no touchstone other than its own attempt to bring internal unification to its assertions, and this requires a free and unhindered contest of these assertions among themselves, which we will now initiate.*

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* The antinomies follow according to the order of the transcendental ideas introduced above.

^a *Prüfungsversuch der Nomothetik*

The Antinomy of Pure Reason

*First Conflict of the Transcendental Ideas*⁵⁴

Thesis

The world has a beginning in time, and in space it is also enclosed in boundaries.

Proof

For if one assumes that the world has no beginning in time, then up to every given point in time an eternity has elapsed, and hence an infinite series of states of things in the world, each following another, has passed away. But now the infinity of a series consists precisely in the fact that it can never be completed through a successive synthesis. Therefore an infinitely elapsed world-series is impossible, so a beginning of the world is a necessary condition of its existence; which was the first point to be proved.⁵⁵

Regarding the second point, again assume the opposite: then the world would be an infinite given whole of simultaneously existing things. Now we can think of the magnitude of a quantum^a that is not given as within certain boundaries of every intuition* in no other way than by the synthesis of its parts, and we can think of the totality of such a quantum^b only through the completed synthesis, or through the repeated addition of units to each other.^f Accordingly, in order to think

* We can intuit an indeterminate quantum as a whole, if it is enclosed within boundaries, without needing to construct its totality through measurement, i.e., through the successive synthesis of its parts. For the boundaries already determine its completeness by cutting off anything further.

^f The concept of a totality is in this case nothing other than the representation of the completed synthesis of its parts, because, since we cannot draw the concept from an intuition of the whole (which is impossible in this case), we can grasp it, at least in the idea, only through the synthesis of the parts up to their completion in the infinite.

^a Kant prints the word in German type but declines it in the Latin genitive: *Quanti*.

^b Again, the genitive *Quanti* is used.

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First Conflict of the Transcendental Ideas

Antithesis

The world has no beginning and no bounds in space, but is infinite with regard to both time and space.

Proof

For suppose that it has a beginning. Since the beginning is an existence preceded by a time in which the thing is not, there must be a preceding time in which the world was not, i.e., an empty time. But now no arising of any sort of thing is possible in an empty time, because no part of such a time has, in itself, prior to another part, any distinguishing condition of its existence rather than its non-existence (whether one assumes that it comes to be of itself or through another cause). Thus many series of things may begin in the world, but the world itself cannot have any beginning, and so in past time it is infinite.⁵⁶

As to the second point, first assume the opposite, namely that the world is finite and bounded in space; then it exists in an empty space, which is not bounded. There would thus be encountered not only a relation^a between things in **space**, but also a relation of things **to space**. Now since the world is an absolute whole, besides which there is encountered no object of intuition, and hence no correlate of the world to which the world could stand in relation, the relation of the world to empty space would be a relation of the world to **no object**. Such a **relation**, however, and hence also the boundedness of the world by empty space, is nothing; therefore the world is not bounded at all in space, i.e., in its extension it is infinite.*

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* Space is merely the form of outer intuition (formal intuition), but not a real object that can be outwardly intuited. Space, prior to all things determining (filling or bounding) it, or which, rather, give an **empirical intuition** as to its form, is, under the name of absolute space,⁵⁷ nothing other than the mere pos-

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^a *Verhältnis*; this will be the only word translated “relation” in Section 2 of the Antinomies unless otherwise noted.

the world that fills all space as a whole, the successive synthesis of the parts of an infinite world would have to be regarded as completed, i.e., in the enumeration of all coexisting things, an infinite time would have to be regarded as having elapsed, which is impossible. Accordingly, an infinite aggregate of actual things cannot be regarded as a given whole, hence cannot be regarded as given **simultaneously**. Consequently, a world is **not infinite** in its extension in space, but is rather enclosed within its boundaries, which was the second point.

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Remark on the First Antinomy

I. On the Thesis

In these mutually conflicting arguments I have not sought semblances^a in order to present (as one says) a lawyer's proof, which takes advantage of an opponent's carelessness and gladly permits a misunderstanding of the law in order to build the case for his own unjust claims on the refutation of the other side. Each of these proofs is drawn from the nature of the case, and any advantage that could be given to us by the fallacies of dogmatists on either side is to be set aside.

I could also have given a plausible^b proof of the thesis by presupposing a defective concept of the infinity of a given magnitude, according to the custom of the dogmatists. A magnitude is **infinite** if none greater than it (i.e., greater than the multiple^c of a given unit contained in it) is possible.⁵⁸ Now no multiplicity is the greatest, because one or more units can always be added to it. Therefore an infinite given magnitude, and hence also an infinite world (regarding either the past series or extension), is impossible; thus the world is bounded in both respects. I could have carried out my proof in this way: only this concept does not agree with what is usually understood by an infinite whole. It does not represent **how great** it is, hence this concept is not the concept of a **maximum**; rather, it thinks only of the relation to an arbitrarily assumed unit, in respect of which it is greater than any number. According as the unit is assumed to be greater or smaller, this infinity would be greater or smaller; yet infinity, since it consists merely in the relation to this given unit, would always remain the same, even though in this way the absolute magnitude of the whole would obviously not be cognized at all, which is not here at issue.

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The true (transcendental) concept of infinity is that the successive synthesis of unity in the traversal of a quantum can never be com-

^a *Blendwerke*^b *dem Scheine nach*^c *Menge*

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II. Remark
On the Antithesis.

The proof for the infinity of the world-series and of the sum total of the world rests on the fact that in the contrary case an empty time, and likewise an empty space, would have to constitute the boundary of the world. Now it is not unknown to me that attempts are made to avoid this consequence by alleging that a boundary of the world in space and time may quite well be possible without having to assume an absolute time before the world's beginning or an absolute space spreading beyond the real world, which is impossible. I am quite satisfied with the last part of this opinion of philosophers of the Leibnizian school. Space is merely the form of outer intuition, but not a real object that can be externally intuited, and it is not a correlate of appearances, but rather the form of appearances themselves. Thus space taken absolutely (simply by itself) alone cannot occur as something determining the existence of things, because it is not an object at all, but only the form of possible objects. Thus things, as appearances, do determine space, i.e., among all its possible predicates (magnitude and relation) they make it the case that this or that one belongs to reality; but space, as something subsisting in itself, cannot conversely determine the reality of things in regard to magnitude and shape, because it is nothing real in itself. A space,

sibility of external appearances, insofar as they either exist in themselves or can be further added to given appearances. Thus empirical intuition is not put together out of appearances and space (out of perception and empty intuition). The one is not to the other a correlate of its synthesis, but rather it is only bound up with it in one and the same empirical intuition, as matter and its form. If one would posit one of these two elements outside the other (space outside of all appearances), then from this there would arise all sorts of empty determinations of outer intuition, which, however, are not possible perceptions. E.g., the world's movement or rest in infinite empty space⁹⁹ is a determination of the relation of the two to one another that can never be perceived, and is therefore the predicate of a mere thought-entity.

pleted.* From this it follows with complete certainty that an eternity of actual states, each following upon another up to a given point in time (the present), cannot have passed away, and so the world must have a beginning.

In regard to the second part of the thesis, the difficulty of a series that is infinite and yet elapsed does not arise; for the manifold of an infinitely extended world is given **simultaneously**. Yet in order to think the totality of such a multiplicity, where we cannot appeal to boundaries which would of themselves constitute this totality in intuition, we have to give an account of our concept, since in such a case it cannot go from the whole to a determinate multiplicity of parts, but must establish the possibility of a whole through the successive synthesis of the parts. Now since this synthesis has to constitute a series that is never to be completed, one can never think a totality prior to it and thus also through it. For in this case the concept of the totality itself is the representation of a completed synthesis of the parts, and this completion, hence also its concept, is impossible.

- A432 / B460 * This [quantum] thereby contains a multiplicity^a (of given units) that is greater than any number, and that is the mathematical concept of the infinite.

^a Menge

Section II. The antithetic of pure reason

therefore (whether it is full or empty),* may well be bounded by appearances, but appearances cannot be bounded by an empty space outside themselves. The same also holds for time. Admitting all this, it is nevertheless uncontroversial that one surely would have to assume these two non-entities, empty space outside the world and empty time before it, if one assumes a boundary to the world, whether in space or in time.

A433/B461

For as to the attempt to escape this consequence by saying that if the world has boundaries (in time and space) then the infinite emptiness would have to determine the existence of things as to their magnitude, this consists in thinking surreptitiously of who knows what intelligible world in place of a **world of sense**, and, instead of a first beginning (an existence before which a time of non-existence precedes) one thinks of an existence in general that **presupposes no other condition** in the world, rather than the boundary of extension one thinks of the **limits** of the world-whole, and thus one gets time and space out of the way. But here we are talking only about the *mundus phaenomenon*^a and its magnitude, where one can in no way abstract from the intended conditions of sensibility without removing the being itself. The world of sense, if it is bounded, necessarily lies in an infinite emptiness. If one wants to leave this out, and hence leave out space in general as the *a priori* condition of the possibility of appearances, then the whole world of sense is left out. But in our problem this alone is given to us. The *mundus intelligibilis*^b is nothing but the concept of a world in general, abstracting from all conditions of intuiting it, and in regard to which, consequently, no synthetic proposition at all, whether affirmative or negative, is possible.^c

* It is easy to notice what would be said here: that **empty space, insofar as it is bounded by appearances**, hence space **within the world**, does not contradict transcendental principles^d at least, and thus could be allowed by them (even though its possibility would not be directly asserted).

A431/B459

A433/B 461

^a world of appearance

^b intelligible world

^c In the first edition, Kant notes: "The cosmological proof of the existence of a necessary being is that from the first mover, or still more generally, from that which first begins. Now with this, causality must also begin, because the concept of a beginning always presupposes a time in which the series was not. In this time it still could not have causality, hence it would have had to begin first of all." (E CLXVIII, p. 50; 23:40)

^d *Principien*

The Antinomy of Pure Reason

Second Conflict of the Transcendental Ideas⁶⁰

Thesis

Every composite substance in the world consists of simple parts, and nothing exists anywhere except the simple or what is composed of simples.

Proof

For, assume that composite substances do not consist of simple parts: then, if all composition is removed in thought, no composite part, and (since there are no simple parts) no simple part, thus nothing at all would be left over; consequently, no substance would be given. Thus either it is impossible to remove all composition in thought or else after its removal something must be left over that subsists without any composition, i.e., the simple. In the first case, the composite would once again not consist of substances (because with substances composition is only a contingent relation,^a apart from which, as beings persisting by themselves, they must subsist). Now since this case contradicts the pre-supposition, only the second case is left: namely, that what is a substantial composite in the world consists of simple parts.⁶¹

From this it follows immediately that all things in the world are simple beings, that composition is only an external state of these beings, and that even though we can never put these elementary substances completely outside this state of combination and isolate them, reason must still think of them as the primary subjects of all composition and hence think of them prior to it as simple beings.^b

^a Relation

^b In the first edition, Kant notes: "In the intellectual, if all division is brought to an end, the simple remains. In the sensible it can never be brought to an end. In thoughts, if it is cancelled, nothing remains." (E CLXVII, p. 50; 23:40)

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A435/B463

Second Conflict of the Transcendental Ideas

Antithesis

No composite thing in the world consists of simple parts, and nowhere in it does there exist anything simple.

Proof

Suppose a composite thing (as substance) consists of simple parts. Because every external relation between substances, hence every composition of them, is possible only in space, there must exist as many parts of space as there are parts of the composite thing occupying it. Now space does not consist of simple parts, but of spaces. Thus every part of the composite must occupy a space. But the absolutely primary parts of the composite are simple. Thus the simple occupies a space. Now since everything real that occupies a space contains within itself a manifold of elements external to one another, and hence is composite, and indeed, as a real composite, it is composed not of accidents (for they cannot be external to one another apart from substance), but therefore of substances; thus the simple would be a substantial composite, which contradicts itself.

The second proposition of the antithesis, that in the world nothing at all exists that is simple, is here supposed to signify only this: The existence of the absolutely simple cannot be established by any experience or perception, whether external or internal, and the absolutely simple is thus a mere idea, whose objective reality can never be established in any possible experience, and hence in the exposition^a of appearances it has no application or object. For if we assumed that this transcendental idea could find an object in experience, then empirical intuition of some such object would have to be recognized, an intuition containing absolutely no manifold whose elements are external to one another and bound into a unity. Now since there is no inference from our not being conscious of <such a manifold to its> complete impossibility in any in-

A437/B465

^a *Exposition*

A438/B466

Remark on the Second Antinomy

I. On the Thesis

A440/B468

When I talk about a whole which necessarily consists of simple parts, I understand thereby a substantial whole only as a proper composite, i.e., as a contingent unity of a manifold that, given as separated (at least in thought), is posited in a reciprocal combination and thereby constitutes one entity. Properly speaking, one should call space not a *compositum*^a but a *totum*,^b because its parts are possible only in the whole, and not the whole through the parts. In any case, it could be called a *compositum idealē*^c but not a *compositum reale*.^d Yet this is only a subtlety. For since space is not a composite of substances (not even of real accidents), if I remove all composition from it, then nothing, not even a point, might be left over; for a point is possible only as the boundary of a space (hence of a composite). Thus space and time do not consist of simple parts. What belongs only to the state of a substance, even if it has a magnitude (e.g., alteration), does not, therefore, consist of the simple, i.e., a certain degree of alteration does not arise through the accumulation of many simple alterations. Our inference from the composite to the simple is valid only for things subsisting by themselves.^e But accidents of a state do not subsist by themselves. Thus one can easily ruin the proof for the necessity of simples as constituent parts of every substantial composite (and thus also the whole thesis), if one extends the proof too far and tries to make it valid for all composites without distinction, as has sometimes actually happened.

^a composite

^b whole

^c ideal composite

^d real composite

^e *für sich*

uition of an object,^a but this intuition is definitely required for absolute simplicity, it follows that this simplicity cannot be inferred from any perception, whatever it might be. Since, therefore, nothing can ever be given as an absolutely simple object^b in any possible experience, but the world of sense must be regarded as the sum total of all possible experiences, nothing simple is given anywhere in it.

This second proposition of the antithesis goes much further than the first, since the first banishes the simple only from the intuition of the composite, while the second, on the other hand, does away with the simple in the whole of nature; hence also it could not have been proved from the concept of a given object of outer intuition (of the composite), but only from its^c relation to a possible experience in general.

II. Remark On the Antithesis

A439/B467

Against this proposition that matter is infinitely divisible, for which the ground of proof is merely mathematical, objections have been put forward by **monadists**,^d who already lay themselves open to suspicion by the fact that they would not allow even the clearest mathematical proofs to count as insights into the constitution of space, insofar as it is in fact the formal condition of the possibility of all matter, but would rather regard these proofs only as inferences from abstract but arbitrary^d concepts which could not be related^e to real things. It is as if it were possible to think up another kind of intuition than the one given in the original intuition of space, and to treat the determinations of space *a priori* as not at the same time applying to what is possible only insofar as it fills space. If one listens to them, then besides mathematical points, which are simple but are boundaries rather than parts of space, one would have to think of physical points too as being not only simple, but as also having, as parts of space, the privilege of filling it through their mere aggregation. Without repeating here the common and clear refutations of this absurdity, of which there are many, just as it is entirely pointless to try by merely discursive concepts to rationalize^f away the evidence of

^a *Object*; In the first edition: ". . . from the non-consciousness of a manifold to the complete impossibility of such a [manifold] in any intuition of the same object . . ."

^b *Object*

^c *dieselben*; the grammatically possible antecedents for this possessive pronoun are: (1) "object" (in "a given object of outer intuition"); (2) "concept" (in "the concept of [the object (1)]"; and (3) "the composite." Given the argument of the previous paragraph, the most likely candidate seems to us to be (1), or possibly (2).

^d *willkürlichen*

^e *bezogen*

^f *vernünfteln*

A442 / B470

Moreover, I am talking here only about the simple insofar as it is necessarily given in the composite, so that the latter can be resolved into the former as its constituent parts. The proper signification of the word **monas** (in Leibniz's usage)⁶³ refers only to the simple given **immediately** as simple substance (e.g., in self-consciousness) and not as element of the composite, which one could better call the atom. And since it is only in regard to composites that I want to prove simple substances, as their elements, I could call the antithesis^a of the second antinomy "transcendental atomistic." But because this word has for some time already been used to indicate a special way of explaining corporeal appearances (*molecularium*),^b and hence presupposes empirical concepts, it may be called the dialectical principle of **monadology**.

^a Antithesis; following Erdmann, we read *These*.

^b of molecules

mathematics, I will remark only that when philosophy quibbles with mathematics, this happens only because it forgets that this question has to do only with **appearances** and their conditions. Here, however, it is not enough to find the concept of the simple for the pure **concept of the understanding** of the composite, but one must find the intuition of the simple for the **intuition** of the composite (for matter), and this is entirely impossible in accordance with the laws of sensibility, hence impossible with objects of sense. Thus for a whole made up of substances thought through the pure understanding it might very well hold that prior to all composition of such substances we must have a simple; but this does not hold for a *totum substantiale phaenomenon*,^a which, as empirical intuition in space, carries with it the necessary property that no part of it is simple, because no part of space is simple. Meanwhile, the monadists are subtle enough to try to escape from this difficulty by not presupposing space as a condition of the possibility of objects of outer intuition (bodies), but rather presupposing these objects and the dynamical relation of substances in general as the condition of the possibility of space. Now we have a concept of bodies only as appearances, but as such they necessarily presuppose space as the condition of the possibility of all external appearance; and so this dodge is futile, just as it has also been sufficiently blocked above in the Transcendental Aesthetic. If they were things in themselves, then the proof of the monadists would of course hold.

The second dialectical assertion has the peculiarity that it has against it a dogmatic assertion that is the only one of all the sophistical^b assertions that undertakes to provide visible proof, in an object of experience, of the reality of something we have ascribed above merely to transcendental ideas, namely the simplicity^c of substance: namely, that the object of inner sense, the I that thinks, is an absolutely simple substance. Without going into this (since it was considered more completely above), I will remark only that if something is merely thought as an object, without adding any synthetic determination of its intuition (as happens in the completely bare representation "I"), then of course nothing manifold and no composition can be perceived in such a representation. Since, further, the predicates through which I think this object are mere intuitions of inner sense, nothing can occur in them that could prove a manifold of elements external to one another, and hence real composition. Thus self-consciousness is such that because the subject that thinks is simultaneously its own object,^d it cannot divide

^a substantial phenomenal whole

^b vernünftelnden

^c Simplicität

^d Object

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itself (though it can divide the determinations inhering in it); for in regard to its own self every object is absolute unity. Nonetheless, if this subject is considered **externally**, as an object of intuition, then it would indeed exhibit composition in its own appearance. This is the way in which it must be considered, however, if one wants to know whether or not there is in it a manifold of elements **external to** one another.

The Antinomy of Pure Reason

Third Conflict of the Transcendental Ideas⁶⁴

Thesis

Causality in accordance with laws of nature is not the only one from which all the appearances of the world can be derived. It is also necessary to assume another causality through freedom in order to explain them.

Proof

Assume that there is no other causality than that in accordance with laws of nature: then everything **that happens** presupposes a previous state, upon which it follows without exception according to a rule. But now the previous state itself must be something that has happened (come to be in a time when it previously was not), since if it had been at every time, then its consequence could not have just arisen, but would always have been. Thus the causality of the cause through which something happens is always something **that has happened**, which according to the law of nature presupposes once again a previous state and its causality, and this in the same way a still earlier state, and so on. If, therefore, everything happens according to mere laws of nature, then at every time there is only a subordinate^a but never a first beginning, and thus no completeness of the series on the side of the causes descending one from another. But now the law of nature consists just in this, that nothing happens without a cause sufficiently determined *a priori*. Thus the proposition that all causality is possible only in accordance with laws of nature, when taken in its unlimited universality, contradicts itself, and therefore this causality cannot be assumed to be the only one.

Accordingly, a causality must be assumed through which something happens without its cause being further determined by another previous cause, i.e., an **absolute causal spontaneity** beginning **from itself**^b a series of appearances that runs according to natural laws, hence transcendental freedom, without which even in the course of nature the series of appearances is never complete on the side of the causes.

^a *subaltern*

^b *von selbst*

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A445/B473

Third Conflict of the Transcendental Ideas

Antithesis

There is no freedom, but everything in the world happens solely in accordance with laws of nature.

Proof

Suppose there were a **freedom** in the transcendental sense, as a special kind of causality in accordance with which the occurrences of the world could follow, namely a faculty of absolutely beginning a state, and hence also a series of its consequences; then not only will a series begin absolutely through this spontaneity, but the determination of this spontaneity itself to produce the series, i.e., its causality, will begin absolutely, so that nothing precedes it through which this occurring action is determined in accordance with constant laws. Every beginning of action, however, presupposes a state of the not yet acting cause, and a dynamically first beginning of action presupposes a state that has no causal connection at all with the cause of the previous one, i.e., in no way follows from it. Thus transcendental freedom is contrary to the causal law, and is a combination between the successive states of effective causes in accordance with which no unity of experience is possible, which thus cannot be encountered in any experience, and hence is an empty thought-entity.

Thus we have nothing but **nature** in which we must seek the connection and order of occurrences in the world. Freedom (independence) from the laws of nature is indeed a **liberation** from **coercion**, but also from the **guidance^a** of all rules. For one cannot say that in place of the laws of nature, laws of freedom enter into the course of the world, because if freedom were determined according to laws, it would not be freedom, but nothing other than nature.^b Thus nature and transcendental freedom are as different as lawfulness and lawlessness; the

A447/B475

^a *Leitfaden*

^b In the first edition: ". . . it would be not freedom, but nature."

A448/B476

Remark on the Third Antinomy I. On the Thesis

The transcendental idea of freedom is far from constituting the whole content of the psychological concept of that name, which is for the most part empirical, but constitutes only that of the absolute spontaneity of an action, as the real ground of its imputability; but this idea is nevertheless the real stumbling block for philosophy, which finds insuperable difficulties in admitting this kind of unconditioned causality. Hence that in the question of freedom of the will which has always put speculative reason into such embarrassment is really only **transcendental**, and it concerns only whether a faculty of beginning a series of successive things or states **from itself^a** is to be assumed. How such a faculty is possible is not so necessary to answer, since with causality in accordance with natural laws we likewise have to be satisfied with the *a priori* cognition that such a thing must be presupposed, even though we do not in any way comprehend how it is possible for one existence to be posited through another existence, and must in this case keep solely to experience. We have really established this necessity of a first beginning of a series of appearances from freedom only to the extent that this is required to make comprehensible an origin of the world, since one can take all the subsequent states to be a result of mere natural laws. But because the faculty of beginning a series in time entirely on its own^b is thereby proved (though no insight into it is achieved), now we are permitted also to allow that in the course of the world different series may begin on their own as far as their causality is concerned, and to ascribe to the substances in those series the faculty of acting from freedom. One should not, however, be stopped here by a misunderstanding, namely, that since a successive series in the world can have only a comparatively first beginning, because a state of the world must always precede it, perhaps no absolutely first beginning of the series is possible

^a *von selbst*

^b *von selbst*

former burdens the understanding with the difficulty of seeking the ancestry of occurrences ever higher in the series of causes, because the causality in them is at every time conditioned, but it promises in compensation a thoroughgoing and lawful unity of experience, while the mirage^a of freedom, on the contrary, though of course offering rest to the inquiring understanding in the chain of causes by leading it to an unconditioned causality that begins to act from itself, since it is itself blind, breaks away from the guidance of those rules by which alone a thoroughly connected experience is possible.

II. Remark On the Antithesis

A449/B477

The defender of the omnipotence^b of nature (transcendental physiocracy), in counteraction to the doctrine of freedom, would maintain his proposition against the sophistical^c inferences of the latter, in the following way. **If you do not assume anything mathematically first in the world as far as time is concerned, then it is also not necessary for you to seek for something dynamically first as far as causality is concerned.** Whoever told you to think up an absolutely first state of the world, and hence an absolute beginning of the continuously elapsing series of appearances, and then, so that your imagination might find some point at which to rest, to set a boundary to limitless nature? Since the substances in the world have always existed – at least the unity of experience makes such a presupposition necessary – there is no difficulty in also assuming that the change of their states, i.e., the series of their alterations, has always existed, and hence that no first beginning, whether mathematical or dynamical, need be sought. The possibility of such an infinite descent, without any first member to which the rest is merely subsequent, cannot, as to its possibility, be made comprehensible.^d But if you reject this riddle of nature on this account, then you will see yourself compelled to dispense with many fundamental properties (fundamental powers) which you can just as little comprehend, and even the possibility of an alteration in general must become a stumbling block for you. For if you did not find through experience that alteration really exists, then you would never be able to imagine^e *a priori* how such an uninterrupted sequence of being and not-being is possible.

A451/B479

^a Blendwerk^b Allvermögenheit^c vernünftelnden^d There is indeed an awkward redundancy in this sentence: "Die Möglichkeit einer solchen unendlichen Abstammung . . . lässt sich, seiner Möglichkeit nach, nicht begreiflich machen."^e ersinnen

during the course of the world. For here we are talking of an absolute beginning not, as far as time is concerned, but as far as causality is concerned. If (for example) I am now entirely free, and get up from my chair without the necessarily determining influence of natural causes, then in this occurrence, along with its natural consequences to infinity, there begins an absolutely new series, even though as far as time is concerned this occurrence is only the continuation of a previous series. For this decision and deed do not lie within the succession of merely natural effects and are not a mere continuation of them; rather, the determining natural causes of that series entirely cease in regard to this event, which indeed follows upon that series, but does not follow from it;^a and therefore it must be called, not as far as time is concerned but in regard to causality, an absolutely first beginning of a series of appearances.

The confirmation of the need of reason to appeal to a first beginning from freedom in the series of natural causes is clearly and visibly evident from the fact that (with the exception of the Epicurean school) all the philosophers of antiquity saw themselves as obliged to assume a **first mover**⁶⁵ for the explanation of motions in the world, i.e., a freely acting cause, which began this series of states first and from itself. For they did not venture to make a first beginning comprehensible on the basis of mere nature.

^a *die zwar auf jene folgt, aber daraus nicht erfolgt*

Section II. The antithetic of pure reason

Moreover, even if a transcendental faculty of freedom is conceded in order to begin alterations in the world, then this faculty would in any case have to be outside the world (although it always remains a bold presumption to assume an object outside the sum total of all possible intuitions, which cannot be given in any possible perception). Yet it can never be permitted to ascribe such a faculty to substances in the world itself, because then the connection of appearances necessarily determining one another in accordance with universal laws, which one calls nature, and with it the mark of empirical truth, which distinguishes experience from dreaming, would largely disappear. For alongside such a lawless faculty of freedom, nature could hardly be thought any longer, because the laws of the latter would be ceaselessly modified by the former, and this would render the play of appearances, which in accordance with mere nature would be regular and uniform, confused and disconnected.

The Antinomy of Pure Reason

Fourth Conflict of the Transcendental Ideas⁶⁶

Thesis

To the world there belongs something that, either as a part of it or as its cause, is an absolutely necessary being.^a

Proof

The world of sense, as the whole of all appearances, at the same time contains a series of alterations. For without these, even the temporal series, as a condition of the possibility of the world of sense, would not be given to us.* Every alteration, however, stands under its condition, which precedes it in time, and under which it is necessary. Now every conditioned that is given presupposes, in respect of its existence, a complete series of conditions up to the unconditioned, which alone is absolutely necessary. Thus there must exist something absolutely necessary, if an alteration exists as its consequence. This necessary being itself, however, belongs to the world of sense. For supposing it is outside it, then the series of alterations in the world would derive from it,

A454/B482

without this necessary cause itself belonging to the world of sense. Now this is impossible. For since the beginning of a time-series can be determined only through what precedes it in time, the supreme condition of the beginning of a series of changes must exist in the time^b when the series was not yet (for the beginning is an existence, preceded by a time in which the thing that begins still was not). Thus the causal-

A452/B482

* Time, as formal condition of the possibility of alterations, indeed precedes it^c objectively, yet subjectively and in the reality of consciousness, this representation is given, like any other, only through the occasion of perceptions.

^a . . . ein schlechthin notwendiges Wesen ist. In the first edition: “. . . ein schlechthin notwendig Wesen ist” (. . . a being that is absolutely necessarily).

^b Fourth edition: “. . . in the world”

^c *dieser*. The antecedent of this singular dative feminine pronoun is unclear, and a matter of dispute; Erdmann prefers to read *diesen*, making the pronoun plural, and (by implication) referring it to “alterations”; on our reading, the singular pronoun refers to the possibility of alterations (thus requiring no textual emendation).

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A453/B481

Fourth Conflict of the Transcendental Ideas

Antithesis

There is no absolutely necessary being existing anywhere, either in the world or outside the world as its cause.

Proof

Suppose that either the world itself is a necessary being or that there is such a being in it; then in the series of its alterations either there would be a beginning that is unconditionally necessary, and hence without a cause, which conflicts with the dynamic law of the determination of all appearances in time; or else the series itself would be without any beginning, and, although contingent and conditioned in all its parts, it would nevertheless be absolutely necessary and unconditioned as a whole, which contradicts itself, because the existence of a multiplicity cannot be necessary if no single part of it possesses an existence necessary in itself.

Suppose, on the contrary, that there were an absolutely necessary cause of the world outside the world; then this cause, as the supreme member in the **series of causes** of alterations in the world, would first begin these changes and their series.* But it would have to begin to act then, and its causality would belong in time, and for this very reason in the sum total of appearances, i.e., in the world; consequently, it itself, the cause, would not be outside the world, which contradicts what was presupposed. Thus neither in the world nor outside it (yet in causal connection with it) is there any absolutely necessary being.

A455/B483

* The word "begin" is taken in two significations. The first is **active**, as when the cause begins (*infit*) a series of states as its effect. The second is **passive**, as when the causality in the cause itself commences (*fir*). I infer here from the former to the latter.

ity of the necessary cause of the alterations, hence the cause itself, belongs to time,^a hence to appearance (in which alone time is possible, as its form); consequently, it cannot be thought as detached from the world of sense as the sum total of all appearances. Thus in the world itself there is contained something absolutely necessary (whether as the whole world-series itself or as a part of it).

A456/B484

Remark on the Fourth Antinomy I. On the Thesis

In order to prove the existence of a necessary being, I am here obliged to use no argument except the **cosmological** one, which ascends from the conditioned in appearance to the unconditioned in concept by viewing the latter as the necessary condition for the absolute totality of the series. It belongs to another principle^b of reason to attempt the proof using only the idea of a being that is supreme over all others, and such a proof will therefore have to be put forward separately.

Now the pure cosmological proof can establish the existence of a necessary being in no other way than by leaving it unsettled whether this being is the world itself or a thing distinct from it. For in order to ascertain the latter, principles would be required that are no longer cosmological and do not continue in the series of appearances, but proceed from concepts of contingent beings in general (insofar as they are considered merely as objects of understanding), and a principle connecting such beings with a necessary being through mere concepts; all this belongs to a **transcendent** philosophy, for which this is still not the place.

But if one begins the proof cosmologically, by grounding it on the series of appearances and the regress in this series in accordance with empirical laws of causality, then one cannot later shift from this and go over to something that does not belong to the series as one of its members. For something regarded as a condition must be taken in just the same significance as it has in the relation^c of conditioned to its condition in the series, if it is to lead this series to its highest condition through a continuous progress. Now if this relation is sensible and belongs to a possible empirical use of the understanding, then the highest condition or cause can conclude the regress only in accordance with laws of sensibility, hence only as something belonging to the time-series, and the necessary being must be regarded as the supreme member of the world-series.

Nevertheless, some have taken the liberty of making such a shift

^a Fifth edition: "to a time"

^b *Princip*

^c *Relation*

II. Remark
On the Antithesis

A457/B485

If one supposes that difficulties are to be encountered in ascending in a series of appearances to the existence of an absolutely necessary cause, then these difficulties must not be grounded on the mere concepts of the necessary existence of a thing, hence they cannot be merely ontological, but must arise from the causal connection with a series of appearances, when it tries to assume a condition which is itself unconditioned, thus they must be cosmological and based on empirical laws. It must be shown, however, that ascent in the series of causes (in the world of sense) could never end with an empirically unconditioned condition, and that the cosmological argument from the contingency of states of the world – from its alterations – comes out against the assumption of a first cause that primarily and absolutely initiates the series.

But an odd contrast shows itself in this antinomy: namely, that the same ground of proof from which the thesis of the existence of an original being was inferred, is used also in the antithesis to prove its non-existence, and indeed with equal rigor. First it is said **There is a necessary being** because the whole past time includes within itself the series of all conditions, and thus with it also the unconditioned (the necessary). Then it is said **There is no necessary being** just because the whole of the time that has elapsed includes within itself the series of all conditions (which therefore, taken all together, are once again conditioned). The cause is this. The first argument looks only to the **absolute totality** of the series of conditions, each determined by another in time, and from this it gets something unconditioned and necessary. The second argument, on the contrary, takes into consideration the **contingency** of everything determined in the **time-series** (because before each [member] a time must precede, in which its condition must once again be determined conditionally), and this completely gets rid of everything unconditioned and all absolute necessity. The mode of inference in both, moreover, is entirely suited to common human reason, which falls repeatedly into the trap of disagreeing with itself when it considers its object from two different standpoints. M. de Mairan took the controversy between two famous astronomers, arising from a similar difficulty in the choice of a standpoint, to be a sufficiently strange

A459/B487

A461/B489

(μεταβασις εις αλλο γενος).^a That is, from the alterations in the world they have inferred their empirical contingency, i.e., their dependence on empirically determining causes, and thus they obtained an ascending series of empirical conditions, which was quite right too. But since they could not find in this series a first beginning or a highest member, they suddenly abandoned the empirical concept of contingency and took up the pure category, which then occasioned a merely intelligible series, whose completeness rests on the existence of an absolutely necessary cause, which now, since it was no longer bound to sensible conditions, was also liberated from the time-condition that even its causality should begin. But this proceeding is entirely illegitimate, as one can conclude from the following.

In the pure sense of the category, the contingent is that whose contradictory opposite is possible. Now from empirical contingency one cannot at all infer this intelligible contingency. When something is altered, its opposite (the opposite of its state) is actual at another time, and hence possible; hence this is not the contradictory opposite of its previous state, for which it would be required that at the very time when the previous state was, its opposite could have been there in place of it, which cannot at all be inferred from the alteration. A body that was in motion (= *A*), comes to be in rest (= *not-A*). Now from the fact that an opposed state follows upon state *A* it cannot be inferred that the contradictory opposite of *A* is possible, and hence that *A* is contingent; for to have this it would be required that in the very time when there was motion, rest could have been there instead. Now we know nothing beyond the fact that rest was actual in the time that followed, and hence that it was possible too. But motion at one time and rest at another time are not contradictory opposites. Thus the succession of opposed determinations, i.e., alteration, in no way proves contingency in accordance with concepts of the pure understanding, and thus it also cannot lead to the existence of a necessary being in accordance with pure concepts of the understanding. Alteration proves only empirical contingency, i.e., that the new state could not at all have occurred on its own, without a cause belonging to the previous time, in accordance with the law of causality. This cause, even if it is assumed to be absolutely necessary, must yet be of such a kind as to be encountered in time and belong to the series of appearances.

^a change to another kind

Section II. The antithetic of pure reason

phenomenon that he wrote a special treatise about it.⁶⁷ One inferred, namely, that **the moon turns on its axis** because it constantly turns the same side toward the earth; the other, that **the moon does not turn on an axis**, just because it constantly turns the same side toward the earth. Both inferences were correct, depending on the standpoint taken when observing the moon's motion.

The
 Antinomy of Pure Reason
 Third Section

On the interest of reason in these conflicts.

Now we have before us the entire dialectical play of the cosmological ideas, which do not permit an object congruent to them to be given in any possible experience, which, indeed, do not even permit reason to think them in agreement with the universal laws of experience, but which have not been thought up arbitrarily; reason, rather, in continuous progression of the empirical synthesis, has been led to them necessarily when it tries to liberate from every condition, and to grasp in its unconditioned totality, that which can always be determined only conditionally in accordance with rules of experience. These sophistical^a assertions are only so many attempts to solve four natural and unavoidable problems of reason; there can be only so many of them, no more and no less, because there are no more series of synthetic presuppositions that bound the empirical synthesis *a priori*.

We have represented the glittering pretensions of reason to extend its territory beyond all the bounds of experience only in dry formulas, which contain merely the ground of reason's legal claims; and, as is fitting for a transcendental philosophy, we have divested these claims of everything empirical, even though the full splendor of reason's assertions can shine forth only in such a combination. But in this application, and in the progressive extension of the use of reason, since it commences with the field of experience and only gradually soars aloft to these sublime ideas, philosophy exhibits such a dignity that, if it could only assert its pretensions, it would leave every other human science far behind in value, since it would promise to ground our greatest expectations and prospects concerning the ultimate ends in which all reason's efforts must finally unite. The questions whether the world has a beginning and its extension in space a boundary; whether there is anywhere, perhaps in my thinking self, an indivisible and indestructible unity, or whether there is nothing but that which is divisible and perishable; whether my actions are free or, like those of other beings, controlled by the strings of nature and fate; whether, finally, there is a supreme cause of the world, or whether natural things and their order constitute the ultimate object, at which all our consideration of things must stop – these are questions for whose solution the mathematician would gladly give up his entire science; for that science cannot give him any satisfaction in regard to the highest and most important ends of humanity. Even the proper dignity of mathematics (that pride of human

^a vernünftelnden

Section III. On the interest of reason in these conflicts

reason) rests on the fact that since in the great as well as the small, in its order and regularity, and in the admirable unity of the forces moving nature, mathematics guides reason's insight into nature far beyond every expectation of any philosophy built on common experience, it gives occasion and encouragement even to the use of reason which extends beyond all experience, just as it provides to the philosophy^a concerned with nature the most excellent materials for supporting its inquiries, as far as their character^b allows, with appropriate intuitions.

Unfortunately for speculation (but perhaps fortunately for the practical vocation)^c of humanity, reason sees itself, in the midst of its greatest expectations, so entangled in a crowd of arguments and counterarguments^d that it is not feasible, on account either of its honor or even of its security, for reason to withdraw and look upon the quarrel with indifference, as mere shadow boxing, still less for it simply to command peace, interested as it is in the object of the dispute; so nothing is left except to reflect on the origin of this disunity of reason with itself, on whether a mere misunderstanding might perhaps be responsible for it, after the elucidation of which perhaps both sides will give up their proud claims, but in place of which reason would begin a rule of lasting tranquility over understanding and sense.

A465 / B 493

For now we will postpone this fundamental inquiry a little longer, and first take into consideration on which side we would prefer to fight if we were forced to take sides. Since in this case we would consult not the logical criterion of truth but merely our interest, our present investigation, even though it would settle nothing in regard to the disputed^e rights of both parties, will have the utility of making it comprehensible why the participants in this dispute have sooner taken one side than the other, even if no superior insight into the object has been the cause of it, and it likewise explains still other ancillary things, e.g., the zealous heat of the one side and the cold assurance of the other, and why they^f hail the one party with joyful approval and are irreconcilably prejudiced against the other.

But there is something which, in this provisional estimate, determines the standpoint from which it can be carried out with appropriate thoroughness, and that is a comparison of the principles^g from which

^a *Weltweisheit*

^b *Beschaffenheit*

^c *Bestimmung*

^d *Gründen und Gegengründen*

^e *streitig*; the first edition reads "*strittig*" (disputable, questionable).

^f This plural pronoun has no plausible nearby referent; both Müller and Kemp Smith translate it as "the world"; but probably its antecedent is supposed to be the "participants in this dispute" (who, Kant says, "have sooner taken one part than the other").

^g *Prinzipien*

A466/B494

the two parties proceed. In the assertions of the antithesis,^a one notes a perfect uniformity in their manner of thought and complete unity in their maxims, namely a principle^b of pure **empiricism**, not only in the explanation of appearances in the world, but also in the dissolution of the transcendental ideas of the world-whole itself. Against this the assertions of the thesis are grounded not only on empiricism within the series of appearances but also on intellectualistic starting points,^c and their maxim is to that extent not simple. On the basis of their essential distinguishing mark, however, I will call them the **dogmatism** of pure reason.

Thus in determining the cosmological ideas of reason, the side of **dogmatism** or the **thesis** exhibits:

First, a certain **practical interest**, in which every well-disposed person, once he understands its true advantage to him, heartily shares. That the world has a beginning, that my thinking self is of a simple and therefore incorruptible nature, that this self is likewise free and elevated above natural compulsion in its voluntary actions, and finally, that the whole order of things constituting the world descends from an original being, from which it borrows all its unity and purposive connectedness – these are so many cornerstones of morality and religion. The antithesis robs us of all these supports, or at least seems to rob us of them.⁶⁸

A467/B495

Second, a **speculative interest** of reason is expressed on this side too. For if one assumes and employs the transcendental ideas in such a way, then one can grasp the whole chain of conditions fully *a priori* and comprehend the derivation of the conditioned, starting with the unconditioned, which the antithesis cannot do; this gives it a bad recommendation, since it can give no answers to questions about the conditions of their synthesis that do not leave something out, and with its answers further questions without any end are always left over. According to the antithesis, one must ascend from a given beginning to a still higher one, every part leads to a still smaller part, every event always has another event above it as its cause, and the conditions of existence in general are always supported again by others, without ever getting stability and support from a self-sufficient thing as an unconditioned original being.

Third, this side also has the merit of **popularity**, which certainly constitutes no small part of what recommends it. The common under-

^a the antithesis in each antinomy

^b *Principium*

^c *intellektuelle Anfänge*; cf. A853/B881, where those who hold that the essential object of cognition is supersensuous (Plato is taken as the paradigm and contrasted with Epicurus, just as is done here at A471/B500) are called "intellectualistic philosophers" or "intellectualists" (*Intellektualphilosophen*, *Intellektuellen*).

Section III. On the interest of reason in these conflicts

standing does not find the least difficulty in the idea of an unconditioned beginning for every synthesis, since in any case it is more accustomed to descending to consequences than to ascending to grounds; and in the concept of something absolutely first (about whose possibility it does not bother itself) it finds both comfort and simultaneously a firm point to which it may attach the reins guiding its steps, since otherwise, always having one foot in the air, it can never take any delight in the restless climb from the conditioned to the condition.

On the side of **empiricism** in determination of the cosmological ideas, or the **antithesis**, there is **first**, no such practical interest from pure principles^a of reason as morality and religion carry with them. Mere empiricism seems rather to take all power and influence away from both. If there is no original being different from the world, if the world is without a beginning and also without an author, if our will is not free and our soul is of the same divisibility and corruptibility as matter, then **moral** ideas and principles lose all validity, and they collapse along with the **transcendental** ideas that constitute their theoretical support.

A468/B496

On the contrary, however, empiricism offers advantages to the speculative interests of reason, which are very attractive and far surpass any that the dogmatic teacher of the ideas of reason might promise. For with empiricism the understanding is at every time on its own proper ground, namely the field solely of possible experiences, whose laws it traces, and by means of which it can endlessly extend its secure and comprehensible^b cognition. Here it can and should exhibit its object, in itself as well as in its relations, to intuition, or at least in concepts an image for which can be clearly and distinctly laid before it in similar given intuitions. Not only is it unnecessary for the understanding to abandon this chain of natural order so as to hang onto ideas with whose objects it has no acquaintance because, as thought-entities, they can never be given; but it is not even permitted to abandon its business, and, under the pretext that this has been brought to an end, to pass over into the territory of idealizing reason and transcendent concepts, where there is no further need to make observations and to inquire according to the laws of nature, but rather only to **think** and **invent**, certain that it can never be refuted by facts of nature because it is not bound by their testimony but may go right past them, or even subordinate them to a higher viewpoint, namely that of pure reason.

A469/B497

Hence the empiricist will never allow any epoch of nature to be assumed to be the absolutely first, or any boundary of his prospect to be

^a *Principien*

^b *fassliche*

regarded as the uttermost in its extent, or^a that among the objects of nature that he can resolve through observation and mathematics and determine synthetically in intuition (the extended) there can be a transition to those which can never be exhibited *in concreto* either in sense or imagination (the simple); nor will he admit that one can take as fundamental **in nature** itself, a faculty (freedom) that operates independently of the laws of nature, and thereby restrict the business of the understanding, which is to trace the origin of appearances guided by necessary rules; nor, finally, will he concede that the cause of anything should be sought outside nature (an original being), for we are acquainted with nothing beyond nature, since it is nature alone that provides us with objects and instructs us as to their laws.

A470 / B498
Of course, if the empirical philosopher with his antithesis had no other intention than to strike down the impertinent curiosity and presumptuousness of those who so far mistake the true vocation^b of reason that they make most of **insight** and **knowledge** just where insight and knowledge really cease, trying to pass off what one should base on practical interests as furthering speculative interests, in order, whenever seems comfortable to them, to break off the thread of their physical investigations and, with a pretense of extending cognition, to attach it to transcendental ideas, by means of which one really knows^c only **that one knows^d nothing**; if, I say, the empiricist were to content himself with this, then his principle would be a maxim for moderating our claims, for being modest in our assertions, and at the same time for the greatest possible extension of our understanding through the teacher really prescribed for us, namely experience. For in such a case, intellectual **presuppositions** and **faith** on behalf of our practical concern would not be taken from us; only one could not put them forward with the title and pomp of science and rational insight, because real speculative **knowledge** can encounter no object anywhere except that of experience, and if one transgresses its boundary, then the synthesis that attempts cognitions which are new and independent of experience has no substratum of intuition on which it could be exercised.

A471 / B499
But if empiricism itself becomes dogmatic in regard to the ideas (as frequently happens), and boldly denies whatever lies beyond the sphere of its intuitive cognitions, then it itself makes the same mistake of immodesty, which is all the more blamable^e here, because it causes an irreparable disadvantage to the practical interests of reason.

^a *oder*; the first edition reads "nor" (*noch*), the same word that, in both editions, introduces the last two main clauses of this sentence.

^b *Bestimmung*

^c *erkennt*

^d *wisse*

^e *tadelbar*; in the first edition, this word is *tadelhaft*.

Section III. On the interest of reason in these conflicts

This is the opposition of **Epicureanism*** and **Platonism.**⁶⁹

Each of the two says more than it knows, but in such a way that the **first** encourages and furthers knowledge, though to the disadvantage of the practical, the **second** provides principles^a which are indeed excellent for the practical, but in so doing allows reason, in regard to that of which only a speculative knowledge is granted us, to indulge in ideal explanations of natural appearances, and to neglect the physical investigation of them.

A472/B500

Finally, as to the **third** moment that can be seen in the provisional choice between the two conflicting parties, it is exceedingly strange that empiricism is completely contrary to everything popular, although one might have thought that the common understanding would eagerly take up a proposal promising to satisfy it through nothing but cognitions of experience and their rational connection, in place of transcendental dogmatism, which compels it to ascend to concepts far surpassing the insight and rational faculties even of those minds most practiced in thinking. But just this is its motive. For then it finds itself in a state in which even the most learned can take nothing away from it. If it understands little or nothing of these matters, neither can anyone else boast that they understand much more; and even if it cannot speak about them with as much scholastic correctness as others do, it can still ratiocinate^b infinitely more about them, because it is wandering among

A473/B501

* There is still a question, however, whether Epicurus ever presented these principles as objective assertions. If they were perhaps nothing more than maxims of the speculative employment of reason, then in them he would have shown as genuine a philosophical spirit as any of the sages^c of antiquity.^d That in the explanation of appearances one must go to work as though the field of investigation were not cut off by any boundary or beginning of the world; that one must assume the material of the world as it has to be if we are to be taught about it by experience; that no other way of generating occurrences than their determination through unalterable natural laws, and finally that no cause distinct from the world are to be employed: even now these are principles, very correct but little observed, for extending speculative philosophy while finding out the principles^e of morality independently of alien sources; if only those who demand that we **ignore** those dogmatic propositions, as long as we are concerned with mere speculation, might not also be accused of trying to **deny** them.

A471/B499

^a *Prinzipien*

^b *vernünfteln*

^c *Weltweisen*

^d In the first edition the sentence does not end here but is separated from what follows by a colon.

^e *Prinzipien*

A472/B500

mere^a ideas, about which one can be at one's most eloquent just because one knows nothing about them; whereas regarding inquiries into nature, it would have to keep quiet and concede that it is ignorant. Comfort and vanity are therefore already a strong recommendation for these principles. Besides, even though for a philosopher it is very difficult to assume something as a principle without being able to give an account of it, or even to assume concepts into whose objective reality there can be no insight, there is nothing more usual for the common understanding. It wants to have something from which it can proceed with confidence. The difficulty of comprehending such a presupposition itself does not disturb it, because (in the case of one who does not know what it means to comprehend) this never crosses its mind, and it takes as known what has become familiar to it through repeated usage. Finally, for the common understanding every speculative interest vanishes before practical interest, and it imagines itself to have insight and knowledge into whatever its apprehensions or hopes impel it to assume or believe. In this way empiricism is robbed completely of all popularity by transcendently idealizing reason; and for all the disadvantages it^b may contain regarding the supreme practical principles, we need have no apprehension that it will ever pass beyond the boundary of the schools, and acquire any considerable regard in the community or any favor among the great multitude.

Human reason is by nature architectonic, i.e., it considers all cognitions as belonging to a possible system, and hence it permits only such principles^c as at least do not render an intended cognition incapable of standing together with others in some system or other. But the propositions of the antithesis are of a kind that they do render the completion of an edifice of cognitions entirely impossible. According to them, beyond every state of the world there is another still older one; within every part there are always still more that are divisible; before every occurrence there was always another which was in turn generated by others; and in existence in general everything is always only conditioned, and no unconditioned or first existence is to be recognized. Thus since the antithesis nowhere allows a first or a starting point that would serve absolutely as the foundation for its building, a completed edifice of cognition on such presuppositions is entirely impossible. Hence the architectonic interest of reason (which is demanded not by empirical unity but by pure rational unity) carries with it a natural recommendation for the assertions of the thesis.

^a *lauter*

^b *sie*; this pronoun, repeated in the next clause, refers grammatically to "transcendentally idealizing reason"; but as Erdmann implies, the sense requires that it be *er*, referring to "empiricism."

^c *Principien*

B 502
A 474

A 475 / B 503

Section IV. On the transcendental problems of pure reason

But if a human being could renounce all interests, and, indifferent to all consequences, consider the assertions of reason merely according to their grounds, then, supposing that he knows no way of escaping from the dilemma^a except by confessing allegiance to one or the other of the conflicting doctrines, such a person would be in a state of ceaseless vacillation. Today it would strike him as convincing that the human will is **free**; tomorrow, when he considered the indissoluble chain of nature, he would side with the view that freedom is nothing but self-deception, and that everything is mere **nature**. But now if it came to be a matter of doing or acting, then this play of merely speculative reason would disappear like the phantom images^b of a dream, and he would choose his principles^c merely according to practical interest. But because mere honesty requires that a reflective and inquiring being should devote certain times solely to testing its own reason, withdrawing entirely from all partiality and publicly communicating his remarks to others for their judgment,^d no one can be reproached for, still less restrained from, letting the propositions and counter-propositions, terrorized by no threats, come forward to defend themselves before a jury drawn from their own estate (namely the estate of fallible^e human beings).

A476/B504

The Antinomy of Pure Reason Fourth Section

The transcendental problems of pure reason,
insofar as they absolutely must be capable of a solution.

Wanting to solve all problems and answer all questions would be impudent boasting and such extravagant self-conceit that one would instantly forfeit all trust. Nevertheless, there are sciences whose nature entails that every question occurring in them must absolutely be answerable from what one knows, because the answer must arise from the same source as the question; and there it is in no way allowed to plead unavoidable ignorance, but rather a solution can be demanded. One must be able to know what is **just** or **unjust** in all possible cases in accordance with a rule, because our obligations are at stake, and we cannot have any obligation to do what we **cannot know**.^f In the explanation of the ap-

^a *Gedränge*

^b *Schattenbilder*

^c *Principien*

^d *anderen zur Beurtheilung*

^e *schwacher*

^f In his copy of the first edition, Kant adds: "In the case of each antinomy, it must be shown that if objects of the senses are assumed as things in themselves, no resolution of this conflict would be possible. Consequently if the proposition were not proved above, it could be inferred from this." (E CLXIX, p. 50; 23:40)

A477/B505

pearances of nature, however, much must remain uncertain and many questions insoluble, because what we know about nature is in many cases far from sufficient for what we would explain. The question now is whether there is any question in transcendental philosophy dealing with an object^a placed before us by reason that is unanswerable by this same pure reason, and whether one could have a right to avoid answering it decisively because one counts as absolutely uncertain (on the basis of what we can know)^b that of which we have enough of a concept of it to be able to raise a question about it, but are so entirely lacking in means or faculties that we can never give the answer.

Now I assert that among all speculative cognition, transcendental philosophy has the special property that there is no question at all dealing with an object given by pure reason that is insoluble by this very same human reason; and that no plea of unavoidable ignorance and the unfathomable depth of the problem can release us from the obligation of answering it thoroughly^c and completely; for the very same concept that puts us in a position to ask the question must also make us competent to answer it, since the object is not encountered at all outside the concept (as it is in the case of justice and injustice).

A478/B506

In transcendental philosophy, however, there are no questions other than the cosmological ones in regard to which one can rightfully demand a sufficient answer concerning the constitution of the object itself; the philosopher is not allowed to evade them by pleading their impenetrable obscurity, and these questions can have to do only with cosmological ideas. For the object must be given empirically, and the question concerns only its conformity with an idea. If the object is transcendental and thus in itself unknown, e.g., whether the something whose appearance (in ourselves) is thinking (the soul) is in itself a simple being, whether there is a cause of all things taken together that is absolutely necessary, etc., then we should seek an object for our idea, which we can concede to be unknown to us, but not on that account impossible.* The

* To the question, "What kind of constitution does a transcendental object have?" one cannot indeed give an answer saying **what it is**, but one can answer that the **question itself is nothing**, because no object for the question is given. Hence all questions of the transcendental doctrine of the soul are answerable and actually answered; for they have to do with the transcendental subject of all inner appearances, which is not itself an appearance and hence is not **given** as an object, and regarding which none of the categories (at which the question is really being aimed) encounter conditions of their application. Thus here is a case where the common saying holds, that no answer is an answer, namely that

^a Object^b erkennen^c gründlich

A479/B507

cosmological ideas alone have the peculiarity that they can presuppose their object, and the empirical synthesis required for its concept, as given; and the question that arises from them has to do only with the progression of this synthesis, insofar as it is to contain an absolute totality, which, however, is no longer empirical, since it cannot be given in any experience. Now since we are here talking about a thing only as an object of a possible experience and not as a thing in itself, the answer to the transcendent cosmological question cannot lie anywhere outside the idea, for it does not have to do with any object in itself; and in regard to possible experience, the question asks not about what can be given *in concreto* in any experience, but rather about what lies in the idea which the empirical synthesis is merely supposed to approximate: therefore, this question must be able to be resolved from the idea alone; for this idea is merely a creature of reason, which therefore cannot refuse the responsibility and pass it on to the unknown object.

It is not as extraordinary as it initially seems that a science can demand and expect clear and certain solutions to all the questions belonging within it^a (*quaestiones domesticae*), even if up to this time they still have not been found. Besides transcendental philosophy, there are two pure sciences of reason, one with merely speculative, the other with practical content: **pure mathematics** and **pure morals**. Has it ever been proposed that because of our necessary ignorance of conditions it is uncertain exactly what relation, in rational or irrational numbers, the diameter of a circle bears to its circumference? Since it cannot be given congruently to the former, but has not yet been found through the latter, it has been judged that at least the impossibility of such a solution can be known^b with certainty, and Lambert gave a proof of this.⁷⁰ In the universal principles^c of ethics nothing can be uncertain, because the propositions are either totally nugatory and empty, or else they have to flow merely from our concepts of reason. On the other hand, in natural science^d there are an infinity of conjectures in regard to which certainty can never be expected, because natural appearances are objects that are given to us independently of our concepts, to which, therefore, the key lies not in us and in our pure thinking, but outside us, and for this reason in many cases it is not found; hence no certain account of these

a question about the constitution of this something, which cannot be thought through any determinate predicate because it is posited entirely outside the sphere of objects that can be given to us, is entirely nugatory and empty.

^a *ihren Inbegriff*

^b *erkannt*

^c *Principien*

^d *Naturkunde*

matters can be expected. I do not include the questions of the transcendental analytic here, because now we are dealing only with the certainty of judgments in regard to objects, and not in regard to the origin of our concepts themselves.

Thus we cannot evade the obligation of giving at least a critical resolution of the questions of reason before us by lamenting the narrow limits of our reason and confessing, with the appearance of a modest self-knowledge,^a that it lies beyond our reason to settle whether the world has existed from eternity or has a beginning, whether world-space is filled to infinity with beings or is enclosed within certain boundaries, whether there is anything simple in the world or everything has to be divided infinitely, whether there is a generating and producing through freedom or everything depends on the causal chain of the natural order, and finally, whether there is any being entirely unconditioned and in itself necessary or whether the existence of everything is conditioned and hence externally dependent and in itself contingent. For each of these questions concerns an object that can be given nowhere but in our thoughts, namely the absolutely unconditioned totality of the synthesis of appearances. If we cannot say or settle anything certain about these questions on the basis of our own concepts, then we must not pass the blame on to the subject matter,^b as hiding itself from us; for such a subject matter (because it is encountered nowhere outside our idea) cannot be given to us at all, but rather we must seek the cause in our idea itself, as a problem permitting of no solution, about which, however, we stubbornly insist on an actual object corresponding to it. A clear presentation of the dialectic lying in our concept itself would soon bring us to complete certainty about what we have to judge in regard to such a question.

In response to your objection that these problems are uncertain one can counterpose this question, to which, at least, you must give a clear answer: Where do you get the ideas the solution to which involves you in such difficulties? Is it perhaps appearances, whose explanation you need here, and about which, owing to these ideas, you have to seek only the principles^c or the rule of their exposition? Assume that nature were completely exposed to you; that nothing were hidden from your senses and to the consciousness of everything laid before your intuition: even then you still could not, through any experience, cognize *in concreto* the object of your ideas (for besides this complete intuition, a completed synthesis and the consciousness of its absolute totality would be re-

^a *Selbsterkenntnis*

^b *Sache*

^c *Principien*

quired, but that is not possible through any empirical cognition); hence your question cannot in any way be necessarily posed^a in the course of explaining any experience that might come before you, and thus posed, as it were, through the object itself. For the object can never come before you, because it cannot be given in any possible experience. With all possible perceptions, you always remain caught up among **conditions**, whether in space or in time, and you never get to the unconditioned, so as to make out whether this unconditioned is to be posited in an absolute beginning of the synthesis or in the absolute totality of the series without a beginning. The whole,^b in an empirical signification, is always only comparative. The absolute whole of magnitude (the world-whole), of division, of descent, of the conditions of existence in general, together with all the questions about whether these are to come about through a finite or an endlessly continuing synthesis, has nothing to do with any possible experience. For example, you will not be able to explain the appearance of a body the least bit better, or even any differently, whether you assume that it consists of simple parts or completely of parts that are always composite; for no simple appearance can come before you, and neither can any infinite composition. Appearances require to be explained only insofar as their conditions of explanation are given in perception, but everything that can ever be given in it, taken together in an **absolute whole**,^c is not itself any perception.^d But it is really this whole^e for which an explanation is being demanded in the transcendental problems of reason.

Since, therefore, the solution to these problems can never occur in experience, you cannot say that it is uncertain what is to be ascribed to the object regarding them. For your object is merely in your brain^f and cannot be given at all outside it; hence all you have to worry about is agreeing with yourself, and avoiding the amphiboly that would make your idea into a putative representation of something given empirically, and thus of an object^g to be cognized in accordance with the laws of experience. Thus the dogmatic solution is not merely uncertain, but impossible. The critical solution, however, which can be completely certain, does not consider the question objectively at all, but instead asks about the foundations of the cognition in which it is grounded.

^a kann eure Frage keineswegs . . . aufgegeben sein

^b All

^c absoluten Ganzen

^d . . . ist selbst eine Wahrnehmung (" . . . is itself a perception"); but the sense seems to require *keine* rather than *eine*, and following Erdmann we have adopted this reading.

^e All

^f Gehirne

^g Object

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The
Antinomy of Pure Reason
Section Five

Skeptical representation of the cosmological questions
raised by all four transcendental ideas.

We would gladly refrain from demanding to see our questions answered dogmatically if we comprehended right from the start that however the answer might come out, it would only increase our ignorance, removing one inconceivability only to replace it with another, taking us out of one obscurity only to plunge us into a still greater one, and perhaps even into contradictions. If our question is put merely in terms of affirmation or negation, then it is prudent to handle it by initially leaving aside the supposed grounds for each side and first taking into account what one would gain if the answer turned out on one side or on the opposite side. Now if it so happened that the result in both cases was something quite empty of sense (nonsense),^a then we would have good grounds to summon our question itself to be critically examined and to see whether it does not itself rest on a groundless presupposition and play with an idea that better betrays its falsity in its application and consequences than in its abstract representation. This is the great utility of the skeptical way of treating the questions that pure reason puts to pure reason; by means of it one can with little expense exempt oneself from a great deal of dogmatic rubbish, and put in its place a sober critique, which, as a true cathartic, will happily purge such delusions along with the punditry^b attendant on them.

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Accordingly, if I could antecedently see about a cosmological idea that whatever side of the unconditioned in the regressive synthesis of appearances it might come down on, it would be either **too big** or **too small** for every **concept of the understanding**, then I would comprehend that since it has to do with an object of experience,⁷¹ which should conform to a possible concept of the understanding, this idea must be entirely empty and without significance because the object does not fit it no matter how I may accommodate the one to the other. And this is actually the case with all the world-concepts, which is why reason, as long as it holds to them, is involved in an unavoidable antinomy. For assume:

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First, that the world has no beginning; then it is **too big** for your concept; for this concept, which consists in a successive regress, can never reach the whole eternity that has elapsed. Suppose it **has a beginning**, then once again it is **too small** for your concept of understanding in the necessary empirical regress. For since the beginning

^a lauter Simmeeres (*Nonsense*)

^b Vielwisserei

Section V. Skeptical representation of all cosmological questions

always presupposes a preceding time, it is still not unconditioned, and the law of the empirical use of the understanding obliges you to ask for a still higher temporal condition, and the world is obviously too small for this law.

It is exactly the same with the two answers to the question about the magnitude of the world in space. For if it is infinite and unbounded, then it is **too big** for every possible empirical concept. If it is finite and bounded, then you can still rightfully ask: What determines this boundary? Empty space is not a correlate of things that subsists by itself, and it cannot be a condition with which you can stop, still less an empirical condition that constitutes a part of a possible experience. (For who can have an experience of what is absolutely empty?) But for the absolute totality of the empirical synthesis it is always demanded that the unconditioned be an empirical concept. Thus a **bounded** world is **too small** for your concept.

Second, if every appearance in space (matter) consists of **infinitely many parts**, then the regress of division is always **too big** for your concept; and if the **division** of space should **cease** at any one member of the division (the simple), then it is **too small** for the idea of the unconditioned. For this member always allows of still another regress to further parts contained in it.

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Third, if you assume that in everything that happens in the world there is nothing but a sequence occurring according to laws of **nature**, then the causality of the cause is always once again something that happens, and that necessitates your regress to still higher causes, and hence the prolonging of the series of conditions *a parte priori* without cessation. Mere efficient^a **nature** in the synthesis of world-events is thus **too big** for all your concepts.

If you choose now and then to admit occurrences produced **from themselves**, hence generated **through freedom**, then by an unavoidable law of nature the question "Why?" will pursue you, and require you, in accord with the causal laws of experience, to go beyond this point; then you will find that such a totality of connection is **too small** for your necessary empirical concept.

Fourth: If you assume an **absolutely necessary** being (whether it be the world itself, or something in the world, or the cause of the world), then you must place it at a time infinitely far removed from every given point in time, because otherwise it would be dependent on another and an older existence. But then this existence is inaccessible and **too big** for your empirical concept, and you could never arrive at it through any regress, however far it might continue.

But if, in your opinion, everything that belongs to the world

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^a *wirkende*

(whether as conditioned or as condition) is **contingent**, then every existence given to you is **too small** for your concept. For this existence compels you to look around for yet another existence on which this one is dependent.

In all these cases, we have said that the **world-idea** is either too big for the empirical regress, hence for every possible concept of the understanding, or else too small for it. But why haven't we expressed ourselves in just the opposite way, and said that in the first case the empirical concept is always too small for the idea, and in the second too big for it – thus, as it were, holding the empirical regress responsible? Why have we instead accused the cosmological idea of falling short or exceeding its end, namely possible experience? The reason was this. It is possible experience alone that can give our concepts reality; without it, every concept is only an idea, without truth and reference to an object. Hence the possible empirical concept was the standard by which it had to be judged whether the idea is a mere idea and a thought-entity^a or instead encounters its object within the world. For one says that one thing is too great or too small relative to another only when the former thing is assumed to exist for the sake of the latter, and hence has to be adapted to it. Among the conundrums^b of the ancient dialectical schools was this question: If a ball does not pass through a hole, should one say that the ball is too big, or that the hole is too small? In this case, it is indifferent how you choose to express yourself; for you do not know which of the two is there for the sake of the other. By contrast, you will not say that the man is too tall for his clothing, but rather that the clothing is too short for the man.

Thus we have been brought at least to the well-grounded suspicion that the cosmological ideas, and all the sophistical assertions about them that have come into conflict with one another, are perhaps grounded on an empty and merely imagined concept of the way the object of these ideas is given to us; and this suspicion may already have put us on the right track for exposing the semblance that has so long misled us.^c

^a *Gedankending*

^b *Spielwerke*

^c In his copy of the first edition, Kant writes: "In the cosmological ideas, the first two propositions say too much for the opposition, the last two too little. The former say: 'Everything is either eternal in time or has a beginning,' while they should have said: 'or it is not eternal and exists as thing in itself in no time at all.'

"In the latter too little is said. Hence both can be true: e.g., everything in the world is either dependent or independent (everything necessary). The former is true of phenomena, the latter of noumena outside the world." (E CLXX, pp. 50–1; 23:40–1)

The
Antinomy of Pure Reason
Section Six
Transcendental idealism as the key to solving
the cosmological dialectic.

We have sufficiently proved in the Transcendental Aesthetic that everything intuited in space or in time, hence all objects of an experience possible for us, are nothing but appearances, i.e., mere representations, which, as they are represented, as extended beings or series of alterations, have outside our thoughts no existence grounded in itself. This doctrine^a I call **transcendental idealism**.^{*} The realist, in the transcendental signification, makes these modifications of our sensibility into things subsisting in themselves, and hence makes **mere representations** into things in themselves.

One would do us an injustice if one tried to ascribe to us that long-decried empirical idealism that, while assuming the proper reality of space, denies the existence of extended beings in it, or at least finds this existence doubtful, and so in this respect admits no satisfactorily provable distinction between dream and truth. As to the appearances of inner sense in time, it finds no difficulty in them as real things; indeed, it even asserts that this inner experience and it alone gives sufficient proof of the real existence of their object^b (in itself) along with all this time-determination.

Our transcendental idealism, on the contrary, allows that the objects of outer intuition are real too, just as they are intuited in space, along with all alterations in time, just as inner sense represents them. For since space is already a form of that intuition that we call outer, and without objects in it there would be no empirical representation at all, we can and must assume extended beings in space as real; and it is precisely the same with time. Space itself, however, together with time, and, with both, all appearances, are **not things**, but rather nothing but representations, and they cannot exist at all outside our mind; and even the inner and sensible intuition of our mind (as an object of conscious-

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* < I have also occasionally called it **formal** idealism, in order to distinguish it from **material** idealism, i.e., the common idealism that itself doubts or denies the existence of external things. In many cases it seems more advisable to employ this rather than the expression given above, in order to avoid all misinterpretation. >^c

^a *Lehrbegriff*

^b *Object*

^c This note was added in the second edition.

ness), the determination of which through the succession of different states is represented^a in time, is not the real self as it exists in itself, or the transcendental subject, but only an appearance of this to us unknown being, which was given to sensibility. The existence of this inner appearance, as a thing thus existing in itself, cannot be admitted, because its condition is time, which cannot be a determination of any thing in itself. In space and time, however, the empirical truth of appearances is satisfactorily secured, and sufficiently distinguished from its kinship with dreams, if both are correctly and thoroughly connected up according to empirical laws in one experience.

Accordingly, the objects of experience are **never** given in **themselves**, but only in experience, and they do not exist at all outside it.

A493 That there could be inhabitants of the moon, even though no human being has ever perceived them, must of course be admitted; but this means^b only that in the possible progress of experience we could encounter them; for everything is actual that stands in one context with a perception in accordance with the laws of the empirical progression. Thus they are real when they stand in an empirical connection with my real consciousness, although they are not therefore real in themselves, i.e., outside this progress of experience.

Nothing is really given to us except perception and the empirical progress from this perception to other possible perceptions. For in themselves, appearances, as mere representations, are real only in perception, which in fact is nothing but the reality of an empirical representation, i.e., appearance. To call an appearance a real thing prior to perception means^c either that in the continuation of experience we must encounter such a perception, or it has no meaning^d at all. For that it should exist in itself without relation to our senses and possible experience, could of course be said if we were talking about a thing in itself. But what we are talking about is merely an appearance in space and time, neither of which is a determination of things in themselves, but only of our sensibility; hence what is in them (appearances) are not something in itself, but mere representations, which if they are not given in us (in perception) are encountered nowhere at all.

The sensible faculty of intuition is really only a receptivity for being affected in a certain way with representations, whose relation to one another is a pure intuition of space and time (pure forms of our sensibility), which, insofar as they are connected and determinable in these

^a *vorgestellt wird*; Kant's sentence contains an extra verb, *ist*; thus the sentence as written doesn't parse, but it suggests that Kant had not decided whether to treat "is represented" as a passive verb or as an adjectival participle.

^b bedeutet

^c bedeutet

^d Bedeutung

Section VI. Key to the solution of the cosmological dialectic

relations^a (in space and time) according to laws of the unity of experience, are called **objects**. The non-sensible cause of these representations is entirely unknown to us, and therefore we cannot intuit it as an object;^b for such an object would have to be represented neither in space nor in time (as mere conditions of our sensible representation), without which conditions we cannot think any intuition. Meanwhile we can call the merely intelligible cause of appearances in general the transcendental object,^c merely so that we may have something corresponding to sensibility as a receptivity. To this transcendental object^d we can ascribe the whole extent and connection of our possible perceptions, and say that it is given in itself prior to all experience. But appearances are, in accordance with it, given not in themselves but only in this experience, because they are mere representations, which signify a real object only as perceptions, namely when this perception connects up with all others in accordance with the rules of the unity of experience. Thus one can say: The real things of past time are given in the transcendental object of experience, but for me they are objects and real in past time only insofar as I represent to myself that, in accordance with empirical laws, or in other words, the course of the world, a regressive series of possible perceptions (whether under the guidance of history or in the footsteps of causes and effects) leads to a time-series that has elapsed as the condition of the present time, which is then represented as real only in connection with a possible experience and not in itself; so that all those events which have elapsed from an inconceivable past time prior to my own existence signify nothing but the possibility of prolonging the chain of experience, starting with the present perception, upward to the conditions that determine it in time.

If, accordingly, I represent all together all existing objects of sense in all time and all spaces, I do not posit them as being there in space and time prior to experience, but rather this representation is nothing other than the thought of a possible experience in its absolute completeness. In it alone are those objects (which are nothing but mere representations) given. But to say that they exist prior to all my experience means^e only that they are to be encountered in the part of experience **to which** I, starting with the perception, must first of all progress. The cause of the empirical conditions of this progress, the cause, therefore, of which members of it I might encounter, and also the extent to which I may encounter them in the regress, is transcendental, and hence necessarily

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^a Verhältnisse

^b Object

^c Object

^d Object

^e bedeutet

unknown to me. We, however, have nothing to do with that, but only with the rule of the progress of experience, in which objects, namely appearances, are given. It is all the same to the outcome whether I say that in the empirical progress in space I could encounter stars that are a hundred times farther from me than the most distant ones I see, or whether I say that perhaps they are there to be encountered in world-space even if no human being has ever perceived them or ever will perceive them; for if they were given as things in themselves, without any reference to possible experience at all, then they would be nothing for me, hence they would not be objects contained in the series of the empirical regress. Only in another relation, when these same appearances are to be used on behalf of the cosmological idea of an absolute whole and having to do with a question that goes beyond the bounds of possible experience, is it important to distinguish between the ways one might take the reality of objects of sense when thinking them, so as to prevent a deceptive delusion that must inevitably arise if we misinterpret our own concepts of experience.

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The
Antinomy of Pure Reason
Section Seven

Critical decision of the cosmological conflict of reason
with itself.

The entire antinomy of pure reason rests on this dialectical argument: If the conditioned is given, then the whole series of all conditions for it is also given; now objects of the senses are given as conditioned; consequently, etc. Through this syllogism, whose major premise seems so natural and evident, a corresponding number of cosmological ideas are introduced, in accordance with the difference of the conditions (in the synthesis of appearances), insofar as they constitute a series, which postulate an absolute totality of these series and thereby put reason into an unavoidable conflict with itself. But before we expose what is deceptive about this sophistical argument, we have to put in place certain of the concepts occurring in it, by correcting and determining them.

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First, the following proposition is clear and undoubtedly certain: If the conditioned is given, then through it a regress in the series of all conditions for it is given to us as a problem;^a for the concept of the conditioned already entails that something is related to a condition, and if this condition is once again conditioned, to a more remote condition, and so through all the members of the series. This proposition is therefore analytic and beyond any fear of a transcendental criticism. It is a

condition-conditioned
relation is analytic & sets
problem for reason

^a uns . . . aufgegeben sei

Section VII. Critical decision of the cosmological conflict

logical postulate of reason to follow that connection of a concept with its conditions through the understanding, and to continue it as far as possible, which already attaches to the concept itself.

Further: If the conditioned as well as its condition are things in themselves, then when the first is given not only is the regress to the second given as a problem, but the latter is thereby really already given along with it; and, because this holds for all members of the series, then the complete series of conditions, and hence the unconditioned is thereby simultaneously given, or rather it is presupposed by the fact that the conditioned, which is possible only through that series, is given. Here the synthesis of the conditioned with its conditions is a synthesis of the mere understanding, which represents things as they are without paying attention to whether and how we might achieve acquaintance^a with them. On the contrary, if I am dealing with appearances, which as mere representations are not given at all if I do not achieve acquaintance with them (i.e. to them themselves, for they are nothing except empirical cognitions),^b then I cannot say with the same meaning^c that if the conditioned is given, then all the conditions (as appearances) for it are also given; and hence I can by no means infer the absolute totality of the series of these conditions. For the appearances, in their apprehension, are themselves nothing other than an empirical synthesis (in space and time) and thus are given only in this synthesis. Now it does not follow at all that if the conditioned (in appearance) is given, then the synthesis constituting its empirical condition is thereby also given too and presupposed; on the contrary, this synthesis takes place for the first time in the regress, and never without it. But in such a case one can very well say that a regress to the conditions, i.e., a continued empirical synthesis on this side is demanded or given as a problem,^d and that there could not fail to be conditions given through this regress.⁷²

From this it is clear that the major premise of the cosmological syllogism takes the conditioned in the transcendental signification of a pure category, while the minor premise takes it in the empirical signification of a concept of the understanding applied to mere appearances; consequently there is present in it that dialectical deception that is called a *sophisma figurae dictio[n]is*.^e This deception is, however, not artificial, but an entirely natural mistake of common reason. For through common reason, when something is given as conditioned, we presuppose (in the major premise) the conditions and their series as it were **sight unseen**,

condition-conditioned
relation and things in
themselves (assumes
determinacy of this)

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^a Kenntnis

^b Kenntnisse

^c Bedeutung

^d aufgegeben

^e "sophism of a figure of speech," or fallacy of equivocation

because this is nothing but the logical requirement of assuming complete premises for a given conclusion, and no time-order is present in the connection of the conditioned with its condition; both are presupposed as given **simultaneously**. Further, it is likewise natural (in the minor premise) to regard appearances as things in themselves and likewise as objects given to the mere understanding, as was the case in the major premise, where I abstracted from all conditions of intuition under which alone objects can be given. But now in this we have overlooked a remarkable difference between the concepts. The synthesis of the conditioned with its condition and the whole series of the latter (in the major premise) carries with it no limitation through time and no concept of succession. The empirical synthesis, on the contrary, and the series of conditions in appearance (which are subsumed in the minor premise), is necessarily given successively and is given only in time, one member after another; consequently here I could not presuppose the absolute **totality** of synthesis and the series represented by it, as I could in the previous case, because there all members of the series are given in themselves (without time-condition), but here they are possible only through the successive regress, which is given only through one's actually completing it.

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A 501

When such a fallacy has been shown to ground the common argument (for the cosmological assertions), the demands of both disputing parties could rightfully be dismissed as being based on no well-grounded title. But that does not put an end to their quarrel to the extent of winning them over to the view that one or both of them is wrong in what he actually asserts (in the conclusion), even if he does not know how to construct sound arguments^a for it. Nothing seems clearer than that between the two, one of whom asserts that the world has a beginning, and the other that it has no beginning but has existed from eternity, one of them has to be right. But if this is so, then because there is equal evidence^b on both sides, it is impossible ever to ascertain which side is right, and so the conflict drags on as before, even though the parties have been directed by the court of reason to hold their peace. Thus no means is left for ending the dispute in a well-grounded way and to the satisfaction of both sides, unless through the fact that they can do such a fine job of refuting each other they are finally won over to the view that they are disputing about nothing, and that a certain transcendental illusion has portrayed a reality to them where none is present. This is the path on which we will now set forth in settling a dispute that cannot be decided by a final judgment.

* * *

^a *Beweisgründe*^b *Klarheit*

Section VII. Critical decision of the cosmological conflict

Zeno the eleatic, a subtle dialectician, was already severely censured by Plato as a wanton sophist who, to show his art, would seek to prove some proposition through plausible arguments and then immediately to overthrow the same proposition through other arguments just as strong.⁷³ He asserted that God (presumably for him this was nothing but the world) is neither finite nor infinite, is neither in motion nor at rest, and is neither like nor unlike any other thing. To those who judged him, it appeared that he wanted entirely to deny two mutually contradictory propositions, which is absurd. But I do not find that this charge can be justly lodged against him. I will throw more light on the first of these propositions presently. As to the others, if by the word **God** he understood the universe, then he must of course say that neither is it persistently present in its place (at rest) nor does it alter its place (move), because all places are only in the universe, hence this **universe** itself is in **no place**. If the world-whole includes in itself everything existing, then it is neither like nor unlike any **other thing**, because there is **no other thing** outside it, with which it might be compared. If two mutually opposed judgments presuppose an inadmissible condition, then despite their conflict (which is, however, not a real contradiction) both of them collapse, because the condition collapses under which alone either of them would be valid.

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If someone said that every body either smells good or smells not good, then there is a third possibility, namely that a body has no smell (aroma) at all, and thus both conflicting propositions can be false. If I say the body is either good-smelling or not good-smelling (*vel suaveolens vel non suaveolens*), then both judgments are contradictorily opposed, and only the first is false, but its contradictory opposite, namely that some bodies are not good-smelling, includes also those bodies that have **no smell at all**. In the previous opposition (*per disparata*)^a the contingent condition of the concept of body (of smell) **remained** in the case of the conflicting judgment, and hence it was not ruled out^b by it; hence the latter judgment was not the contradictory opposite of the former.

Accordingly, if I say that as regards space either the world is infinite or it is not infinite (*non est infinitus*), then if the first proposition is false, its contradictory opposite, "the world is not infinite," must be true. Through it I would rule out only an infinite world, without positing another one, namely a finite one. But if it is said that the world is either infinite or finite (not-infinite), then both propositions could be false. For then I regard the world as determined in itself regarding its magnitude, since in the opposition I not only rule out its infinitude, and

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^a through different things

^b *aufgehoben*

with it, the whole separate^a existence of the world, but I also add a determination of the world, as a thing active in itself, which might likewise be false, if, namely, the world were **not** given at all as a thing in itself, and hence, as regards its magnitude, neither as infinite nor as finite. Permit me to call such an opposition a **dialectical** opposition, but the contradictory one an analytical **opposition**.^b Thus two judgments dialectically opposed to one another could both be false, because one does not merely contradict the other, but says something more than is required for a contradiction.

If one regards the two propositions, "The world is infinite in magnitude," "The world is finite in magnitude," as contradictory opposites, then one assumes that the world (the whole series of appearances) is a thing in itself. For the world remains, even though I may rule out the infinite or finite regress in the series of its appearances. But if I take away this presupposition, or rather this transcendental illusion, and deny that it is a thing in itself, then the contradictory conflict of the two assertions is transformed into a merely dialectical conflict, and because the world^c does not exist at all (independently of the regressive series of my representations), it exists neither as **an in itself infinite** whole nor as **an in itself finite** whole. It is only in the empirical regress of the series of appearances, and by itself it is not to be met with at all. Hence if it^d is always conditioned, then it is never wholly given, and the world is thus not an unconditioned whole, and thus does not exist as such a whole, either with infinite or with finite magnitude.⁷⁴

What has been said here about the first cosmological idea, namely the absolute totality of magnitude in appearance, holds also for the others. The series of appearances is to be encountered only in the regressive synthesis itself, but is not encountered in itself in appearance, as a thing on its own given prior to every regress. Hence I will have to say: the multiplicity of parts in a given appearance is in itself neither finite nor infinite, because appearance is nothing existing in itself, and the parts are given for the very first time through the regress of the decomposing synthesis, and in this regress, which is never given absolutely **wholly** either as finite nor as infinite. The very same holds of the series of causes ordered one above another, or of conditioned existence up to necessary existence, which can never be regarded in them-

^a abgesondert

^b In the two italicized phrases, the term used is *Opposition*, not Kant's usual term *Entgegensetzung*.

^c In the first edition: "... and the world, because it . . ."

^d diese, whose referent, on grammatical grounds, could be either "world" or "series" (but not "regress").

Section VII. Critical decision of the cosmological conflict

selves as either finite or infinite in their totality, because, as series of subordinated representations, they exist only in the dynamical regress; but prior to this regress, and as a series of things subsisting for themselves, they cannot exist at all in themselves.

Accordingly, the antinomy of pure reason in its cosmological ideas is removed by showing that it is merely dialectical and a conflict due to an illusion arising from the fact that one has applied the idea of absolute totality, which is valid only as a condition of things in themselves, to appearances that exist only in representation, and that, if they constitute a series, exist in the successive regress but otherwise do not exist at all. But one can, on the contrary, draw from this antinomy a true utility, not dogmatic but critical and doctrinal utility, namely that of thereby proving indirectly the transcendental ideality of appearances, if perhaps someone did not have enough in the direct proof in the Transcendental Aesthetic. The proof would consist in this dilemma. If the world is a whole existing in itself, then it is either finite or infinite. Now the first as well as the second alternative is false (according to the proof^a offered above for the antithesis on the one side and the thesis on the other). Thus it is also false that the world (the sum total of all appearances) is a whole existing in itself. From which it follows that appearances in general are nothing outside our representations, which is just what we mean by their transcendental ideality.

This remark is of some importance. From it one sees that the above proofs of the fourfold antinomy are not semblances but well grounded, that is, at least on the presupposition that appearances, or a world of sense comprehending all of them within itself, are things in themselves. The conflict of the propositions drawn from it, however, uncovers a falsehood lying in this presupposition and thereby brings us to a discovery about the true constitution of things as objects of sense. Thus the transcendental dialectic by no means provides support for skepticism, though it does for the skeptical method, which can point to the dialectic as an example of the great utility of letting the arguments of reason confront one another in the most complete freedom; such arguments, although they may not deliver what one was seeking, nevertheless will always deliver something useful and serviceable for the correction of our judgments.^b

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^a In the first edition: "proofs"

^b Notes in Kant's copy of the first edition: "In the first class of antinomical propositions both are false, because they say more than is true, namely [that there is an] absolute totality of appearances.

"In the second [class] both can be true, because they will say less than is required for the opposition; [for] it can [happen] that intellectual [things] are posited in place of sensibles." (E CLXXI, p. 51; 23:41)

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The
 Antinomy of Pure Reason
 Section Eight

The regulative principle^a of pure reason in regard to the cosmological ideas.

Since through the cosmological principle of totality no maximum in the series of conditions in a world of sense, as a thing in itself, is **given**, but rather this maximum can merely be **given as a problem**^b in the regress of this series, the principle of pure reason we are thinking of retains its genuine validity only in a corrected significance:^c not indeed as an **axiom** for thinking the totality in the object^d as real, but as a **problem**^e for the understanding, thus for the subject in initiating and continuing, in accordance with the completeness of the idea, the regress in the series of conditions for a given conditioned. For in sensibility, i.e., in space and time, every condition to which we can attain in the exposition of given appearances is in turn conditioned, because these appearances are not objects in themselves in which the absolutely unconditioned might possibly occur, but only empirical representations, which must always find in intuition their condition, which determines them as regards space or time. Thus the principle of reason is only a **rule**, prescribing a regress in the series of conditions for given appearances, in which regress it is never allowed to stop with an absolutely unconditioned. Thus it is not a principle^f of the possibility of experience and of the empirical cognition of objects of sense, hence not a principle of the understanding, for every experience is enclosed within its boundaries (conforming to the intuition in which it is given); nor is it a **constitutive principle**^g of reason for extending the concept of the world of sense beyond all possible experience; rather it is a principle of the greatest possible continuation and extension of experience, in accordance with which no empirical boundary would hold as an absolute boundary; thus it is a principle^h of reason which, as a **rule**, postulates what should be effectedⁱ by us in the regress, but **does not anticipate** what is given in itself **in the object**^j prior to any regress. Hence I call it a **regulative**

^a *Princip*^b *aufgegeben*^c *Bedeutung*^d *Object*^e *Problem*^f *Principium*^g *Princip*^h *Principium*ⁱ *gescheben*^j *Object*

A509/B537

Section VIII. The regulative principle of pure reason

principle^a of reason, whereas the principle of the absolute totality of the series of conditions, as given in itself in the object^b (in the appearances), would be a constitutive cosmological principle,^c the nullity of which I have tried to show through just this distinction, thereby preventing – what would otherwise unavoidably happen (through a transcendental subreption) – the ascription of objective reality to an idea that merely serves as a rule.

Now in order to determine the sense of this rule of pure reason appropriately, it must first be noted that it cannot say **what the object^d is**, but only **how the empirical regress is to be instituted** so as to attain to the complete concept of the object.^e For if the former were the case, then it would be a constitutive principle,^f the likes of which is never possible on the basis of pure reason. Thus with it one can by no means have the intention to say that the series of conditions for a given conditioned is in itself finite or infinite; for in that way a mere idea of the absolute totality, which is produced only in the idea itself, would think an object that cannot be given in any experience, since an objective reality independent of empirical synthesis would be ascribed to a series of appearances. Thus the idea of reason will only prescribe a rule to the regressive synthesis in the series, a rule in accordance with which it proceeds from the conditioned, by means of all the conditions subordinated one to another, to the unconditioned, even though the latter will never be reached. For the absolutely unconditioned is not encountered in experience at all.

To this end, the first thing to do is to determine precisely the synthesis of a series insofar as it is never complete. With this aim one usually employs two expressions, which are supposed to draw a distinction, even though one does not know how to specify the ground of this distinction correctly. Mathematicians speak solely of a *progressus in infinitum*.^g But those who study concepts (philosophers) want, in place of this, to make the expression *progressus in indefinitum*^b the only valid one.⁷⁵ Without stopping to examine the reservations to which this distinction has led, or to test whether their use has been good or fruitless, I will seek to determine these concepts precisely in relation to my own intentions.

One can rightly say of a straight line that it could be extended to in-

A 510/B 538

A 511/B 539

^a *Princip*

^b *Object*

^c *Princip*

^d *Object*

^e *Object*

^f *Principium*

^g *progress to infinity*

^b *indefinite progress*

finity, and here the distinction between the infinite and a progress of indeterminate length (*progressus in indefinitum*) would be an empty subtlety. For although when it is said, "Draw a line" it obviously sounds more correct to add *in indefinitum* than if it were said *in infinitum*, because the first means^a no more than "Extend it as far as you want," but the second means^b "You ought never to stop extending it" (which is not at all intended here); yet if we are talking only about what can be done, then the first expression is entirely correct, for you could always make it greater, to infinity. And this is also the situation in all cases where one is speaking only of a forward progress,^c i.e., of a progress from the condition to the conditioned; this possible progress in the series of appearances goes to infinity. From one pair of parents you could progress in a descending line of generation without end, and you could also think that it might actually progress that way in the world. For here reason never needs an absolute totality in the series, because it is not presupposed as a condition as given (*datum*), but it is only added on as something conditioned, which is capable of being given (*dabile*), and this without end.

A 512/B 540

It is entirely otherwise with the problem how far does the regress extend when it ascends from the given conditioned to its conditions in the series: whether I can say here that there is a **regress to infinity** or only a regress extending **indeterminately far** (*in indefinitum*), and whether from human beings now living I can ascend to infinity in the series of their ancestors, or whether it can be said only that as far as I have gone back, there has never been an empirical ground for holding the series to be bounded anywhere, so that for every forefather I am justified in seeking, and at the same time bound to seek, still further for his ancestors, though not to presuppose them?

A 513/B 541

To this I say: If the whole was given in empirical intuition, then the regress in the series of its inner conditions goes to infinity. But if only one member of the series is given, from which the regress to an absolute totality is first of all to proceed, then only an indeterminate kind of regress (*in indefinitum*) takes place. Thus of the division of matter (of a body) that is given within certain boundaries, it must be said that it goes to infinity. For this matter is given in empirical intuition as a whole, and consequently with all its possible parts. Now since the condition of this whole is its part, and the condition of this part is a part made of parts, etc., and in this regress of decomposition an unconditioned (indivisible) member of this series of conditions is never encountered, not only is

^a bedeutet^b bedeutet^c *Progressus*

there nowhere an empirical ground to stop the division, but the further members of the continuing division are themselves empirically given prior to this ongoing division, i.e., the division goes to infinity. On the contrary, the series of ancestors for a given human being is not given in its absolute totality in any possible experience, but the regress goes from each member of this generation to a higher one, so that no empirical boundary is to be encountered that would exhibit one member as absolutely unconditioned. But since the members that might supply the conditions for it nevertheless do not already lie in the empirical intuition of the whole prior to the regress, this regress does not go to infinity (by division of the given) but goes to an indeterminate distance, searching for more members for the given, which are once again always given only conditionally.

In neither of these two cases, that of the *regressus in infinitum* as well as in that of the *in indefinitum*, is the series of conditions regarded as being given as infinite in the object.^a It is not things in themselves that are given, but only appearances, which, as conditions of one another, are given only in the regress itself. Thus the question is no longer how big this series of conditions is in itself – whether it is finite or infinite – for it is nothing in itself; rather, the question is how we are to institute the empirical regress and how far we are to continue it. And then there is a difference worth noting in regard to the rule to be followed in this progress. If the whole has been empirically given, then it is **possible** to go back **to infinity** in the series of its inner conditions. But if that whole is not given, but rather is first to be given only through an empirical regress, then I can say only that it is **possible** to progress to still higher conditions in the series **to infinity**. In the first case I could say: There are always more members there, and empirically given, than I reach through the regress (of decomposition); but in the second case I can say only: I can always go still further in the regress, because no member is empirically given as absolutely unconditioned, and thus a higher member may be admitted as possible and hence the inquiry after it may be admitted as necessary. In the former case it was necessary to **encounter** more members of the series, but in the latter case it is always necessary to **inquire** after more of them, because no experience is bounded absolutely. For you have either no perception that absolutely bounds your empirical regress, and then you must not hold your regress to be complete; or if you have such a perception bounding your series, then this cannot be a part of your regressive series (because that which **bounds** must be distinguished from **that which is bounded** by it), and so you have to continue your regress further to this condition, and so on.

A 514/B 542

A 515/B 543

^a Object

The following section will place these remarks in a suitable light by giving them an application.

The Antinomy of Pure Reason

Section Nine

On the empirical use of the regulative principle^a of reason,
in regard to all cosmological ideas.

Since, as we have repeatedly shown, there is just as little transcendental use of pure concepts of understanding as there is of concepts of reason, because the absolute totality of series of conditions in the world of sense is based solely on a transcendental use of reason that demands this unconditioned completeness from what it presupposes is a thing in itself; and since the world of sense, however, contains nothing like that completeness, there can never again be an issue about the absolute magnitude of the series in this world, whether it might be bounded or in itself unbounded, but only about how far we should go back in the empirical regress when we trace experience back to its conditions, so that, following the rule of reason, we do not stop with any answer to its questions except that which is appropriate to the object.

Thus the only thing left to us is the validity of the principle^b of reason as a rule for the continuation and magnitude of a possible experience, once its invalidity as a constitutive principle of appearances in themselves has been adequately demonstrated. If we can keep the former in view and beyond doubt, then the conflict of reason with itself will also be entirely at an end, since not only will the illusion that put reason at odds with itself have been done away with through its critical dissolution, but in place of it, that sense will have been uncovered in which reason agrees with itself, and whose misinterpretation was the sole cause of the conflict; and a principle that would otherwise be dialectical will be transformed into a doctrinal principle. In fact, if this principle can be preserved in its subjective signification for suitably determining the greatest possible use of the understanding in experience in regard to its objects, then that would be just as if the principle were (what it is impossible to get from pure reason) an axiom determining objects in themselves *a priori*; for even this could have no greater influence on the extension and correction of our cognition in regard to objects^c of experience than by actively proving itself in the most extensive use of our understanding in experience.

^a Princip

^b Princip

^c Objecte

I.

Resolution of the cosmological idea
of the totality of the composition of the appearances
of a world-whole.

Here, as well as in the case of the remaining cosmological questions, the ground of the regulative principle^a of reason is the proposition that in the empirical regress there can be encountered **no experience of an absolute boundary**, and hence no experience of a condition as one that is **absolutely unconditioned empirically**. The reason for this, however, is that such an experience would have to contain in itself a bounding of appearance by nothing, or by the void, which the regress, carried on far enough, would have to encounter by means of a perception – which is impossible.

Now this proposition, which says only that in the empirical regress I can always attain only to a condition that must itself in turn be regarded as empirically conditioned, contains the rule *in terminis^b* that however far I may have come in the ascending series, I must always inquire after a higher member of the series, whether or not this member may come to be known to me through experience.

A 518/B 546

Now nothing further is required for the resolution of the first cosmological problem except to settle whether, in the regress to the unconditioned magnitude of the world-whole (in time and in space), this never bounded ascent can be called a **regress to infinity**, or only an **indeterminately continued regress (in indefinitum)**.

The merely general representation of the series of all past states of the world, as well as of the things that simultaneously exist in the world's space, is nothing other than a possible empirical regress that I think, though still indeterminately, and through which alone there can arise the concept of such a series of conditions for a given perception.* Now I always have the world-whole only in concept, but by no means (as a whole) in intuition. Thus I cannot infer from its magnitude to the magnitude of the regress, and determine the latter according to the for-

A 519/B 547

* This world-series^c can thus be neither bigger nor smaller than the possible empirical regress, on which alone its concept rests. And since this cannot yield a determinate infinite, nor yet something determinately finite (something absolutely bounded), it is clear from this that we can assume the magnitude of the world to be neither finite nor infinite, since the regress (through which this magnitude is represented) admits of neither of the two.

A 518/B 546

^a *Princips*

^b *in its terms*

^c *Weltreihe*

mer, but rather it has to be through the magnitude of the empirical regress that I first make for myself a concept of the magnitude of the world. About this regress, however, I never know anything more than that from any given member of the series of conditions I must always proceed empirically to a higher (more remote) member. Thus by that means the magnitude of the whole of appearances is never determined absolutely; hence also one cannot say that this regress goes to infinity, because this would anticipate the members to which the regress has not yet attained, and would represent their multiplicity^a as so great that no empirical synthesis can attain to it; consequently, it would determine (though only negatively) the magnitude of the world prior to the regress, which is impossible. For the latter (in its totality) is not given to me through any intuition, hence its magnitude is not given at all prior to the regress. Accordingly, we can say nothing at all about the magnitude of the world in itself, not even that in it there is the *regressus in infinitum*,^b but rather we must seek the concept of its magnitude only according to the rule determining the empirical regress in it. But this rule says nothing more than that however far we may have come in the series of empirical conditions, we should never assume an absolute boundary, but rather we should subordinate every appearance as conditioned to another as its condition, and thus we must progress further to this condition; this is a *regressus in indefinitum*,^c which, because it determines no magnitude in the object,^d can be distinguished clearly enough from the regress *in infinitum*.

Accordingly, I cannot say the world is **infinite** in past time or in space. For such a concept of magnitude, as a given infinity, is empirical, hence it is absolutely impossible in regard to the world as an object of sense. I will also not say that the regress from a given perception to everything bounding it in a series, in space and in past time, goes **to infinity**; for this presupposes the infinite magnitude of the world; nor will I say that it is **finite**; for an absolute boundary is likewise empirically impossible. Accordingly, I will be able to say nothing about the whole object of experience (the world of sense), but only something about the rule in accord with which experience, suitably to its object, is to be instituted and continued.

Thus to the cosmological question about the magnitude of the world, the first and negative answer is: The world has no first beginning in time and no outermost boundary in space.

For in the opposite case, it would be bounded by empty time on the one side and by empty space on the other. Now since as appearance it

^a Menge

^b infinite regress

^c indefinite regress

^d Object

Section IX. On the empirical use of the regulative principle

cannot in itself be either of these, because appearance is not a thing in itself, a perception of boundedness through absolutely empty time or empty space would have to be possible, through which these world-ends would have to be given in a possible experience. But such an experience, as completely empty of content, is impossible. Thus an absolute boundary of the world is empirically impossible, and hence also absolutely impossible.*

From this follows at the same time the **affirmative** answer: The regress in the series of appearances in the world, as a determination of the magnitude of the world, goes on *in indefinitum*, which is as much as to say that the world of sense has no absolute magnitude, but the empirical regress (through which alone it can be given on the side of its conditions) has its rule, namely always to progress from each member of the series, as a conditioned, to a still more remote member (whether by means of one's own experience, or the guiding thread of history, or the chain of effects and their causes), and nowhere to exceed the extension of the possible empirical use of one's understanding, since this extension is the sole and proper business of reason in its principles.^a

A 522/B 550

What is not prescribed here is a determinate empirical regress that continues in a certain kind of appearance without ever ceasing, e.g., that from a living human being one must always ascend in the series of his ancestors without ever expecting a first pair, or in the series of bodies in the world without admitting an outermost sun; on the contrary, what is required is only the progress from appearances to appearances, even if they should not yield any actual perception (if this perception is too weak in degree to become an experience for our consciousness), because despite this they would still belong to possible experience.⁷⁶

Every beginning is in time, and every boundary of the extended is in space. Space and time, however, are only in the world of sense. Hence appearances are **in the world** only conditionally, **the world** itself is neither conditioned nor bounded in an unconditional way.

Just for this reason, and since the world cannot be given **as a whole**, and even the series of conditions for a given conditioned, as a world-series, **cannot be given as a whole**, the concept of the magnitude of

* One will note that the proof is carried on here in an entirely different way from the dogmatic one in the antithesis of the first antinomy. There, in accordance with the common and dogmatic way of representing it, we let the world of sense count as a thing whose totality is given in itself prior to any regress, and, if it did not occupy all space and all time, we denied it any determinate place in space and time. Hence the conclusion was different from this one too: namely, the actual infinity of the world was inferred.

A 521/B 549

^a *Principien*

A 523/B 551

the world is given only through the regress, and not given prior to it in a collective intuition. But the regress consists only in a **determining** of the magnitude, and thus it does not give a **determinate** concept, a concept of a magnitude that would be infinite in regard to a certain measure; thus it does not go to infinity (given, as it were), but goes only indeterminately far, so as to give a magnitude (of experience) that first becomes actual through this regress.

II.

Resolution of the cosmological idea
of the totality of division of a given whole
in intuition.

If I divide a whole that is given in intuition, then I go from a conditioned to the conditions of its possibility. The division of the parts (*subdivisio* or *decompositio*) is a regress in the series of these conditions. The absolute totality of this **series** would be given only when and if the regress could attain to **simple** parts. But if each of the parts in a continuously progressing decomposition is once again divisible, then the division, i.e., the regress from the conditioned to its condition, goes *in infinitum*;^a for the conditions (the parts) are contained in the conditioned itself, and since this conditioned is given as a whole in an intuition enclosed within its boundaries, the conditions are all given along with it. The regress thus may not be called merely a regress *in indefinitum*, as only the previous cosmological idea allowed, where I was to proceed from the conditioned to conditions outside it, which were not given simultaneously with it, but were first added to it in the empirical regress. Despite this, it is by no means permitted to say of such a whole, which is divisible to infinity, that **it consists of infinitely many parts**. For though all the parts are contained in the intuition of the whole, the **whole division** is **not** contained in it; this division consists only in the progressive decomposition, or in the regress itself, which first makes the series actual. Now since this regress is infinite, all its members (parts) to which it has attained are of course contained in the whole as an **aggregate**, but the **whole series** of the **division** is not, since it is infinite successively and never is **as a whole**; consequently, the regress cannot exhibit any infinite multiplicity^b or the taking together of this multiplicity into one whole.

This general reminder is, first, very easily applied to space. Every space intuited within its boundaries is such a whole, whose parts in every decomposition are in turn spaces, and it is therefore divisible to infinity.

^a to infinity

^b Menge

Section IX. On the empirical use of the regulative principle

A 525/B 553

From this there also follows quite naturally the second application, to an external appearance enclosed within its boundaries (a body). Its division is grounded on the divisibility of space, which constitutes the possibility of the body as an extended whole. The latter is thus divisible to infinity, without, however, therefore consisting of infinitely many parts.

To be sure, it appears that since a body has to be represented as a substance in space, it is to be distinguished from a space as far as the law of the divisibility of space is concerned; for one can in any case concede that the decomposition of the latter could never do away with all composition, since then every space, having nothing else that is self-subsistent, would cease to be (which is impossible); yet it does not seem to be compatible with the concept of a substance – which is really supposed to be the subject of all composition, and has to remain in its elements even if its connection in space, by which it constitutes a body, were removed – that if all composition of matter were removed in thought, then nothing at all would remain. Yet with that which is called substance **in appearance** things are not as they would be with a thing in itself which one thought through pure concepts of the understanding. The former is not an absolute subject, but only a persisting image of sensibility, and it is nothing but intuition, in which nothing unconditioned is to be encountered anywhere.

A 526/B 554

But now although this rule of progress to infinity applies without any doubt to the subdivision of an appearance as a mere filling of space, it cannot hold if we want to stretch it to cover the multiplicity of parts already detached with certainty in a given whole, constituting thereby a *quantum discretum*.^{a,77} To assume that in every whole that is articulated into members^b (organized), every part is once again articulated, and that in such a way, by dismantling the parts to infinity, one always encounters new complex parts^c – in a word, to assume that the whole is articulated to infinity – this is something that cannot be thought at all, even though the parts of matter, reached by its decomposition to infinity, could be articulated. For the infinity of the division of a given appearance in space is grounded solely on the fact that through this infinity merely its divisibility, i.e., a multiplicity of parts, which is in itself absolutely indeterminate, is given, but the parts themselves are given and determined only through the subdivision – in short, on the fact that the whole is not in itself already divided up. Hence the division can determine a multiplicity as far as one wants to proceed in the regress of the division. In the case of an organic body articulated to infinity, on the contrary, the whole is represented through this very con-

A 527/B 555

^a discrete quantity

^b gegliedert

^c Kunsteile

cept as already divided up, and a multiplicity of parts, determinate in itself but infinite, is encountered prior to every regress in the division – through which one contradicts oneself, since this infinite development is regarded as a series that is never to be completed (as infinite) and yet as one that is completed when it is taken together. The infinite division indicates only the appearance as *quantum continuum*,^a and is inseparable from the filling of space; for the ground of its infinite divisibility lies precisely in that. But as soon as something is assumed as a *quantum discretum*,^b the multiplicity of units in it is determined; hence it is always equal to a number. Thus only experience can settle how far the organization in an articulated body may go; and even if it was certain to attain to no inorganic parts, such parts must nevertheless at least lie within a possible experience. But how far the transcendental division of an appearance in general may reach is not a matter of experience at all, but it is rather a principle^c of reason never to take the empirical regress in the composition of what is extended, in conformity with the nature of this appearance, to be absolutely complete.

A528/B556

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Concluding remark
on the resolution of the mathematical-transcendental
ideas, and preamble to the resolution of the
dynamic-transcendental ideas.⁷⁸

When we represented the antinomy of pure reason in a table through all the transcendental ideas, where we showed the ground of this conflict and the only means of removing it – which consisted in declaring both of the opposed assertions to be false – we in all cases represented the conditions for their conditioned as belonging to relations of space and time, which is the usual presupposition of common human understanding, on which, therefore, the conflict entirely rested. In this respect all dialectical representations of totality in the series of conditions for a given conditioned were of the **same kind**^d throughout. There was always a series, in which the condition was connected with the conditioned as a member of the series, and thereby was **homogeneous**,^e since the regress is never thought of as completed, or else, if this were to happen, a member conditioned in itself would have to be falsely as-

^a continuous quantity^b discrete quantity^c *Principium*^d *von gleicher Art*^e *gleichartig*

Section IX. On the empirical use of the regulative principle

sumed to be a first, and hence unconditioned member. Thus it would not always be the object,^a i.e., the conditioned, but the series of conditions for it, which was so considered merely in its magnitude; and then the difficulty – which could not be removed by any compromise, but only by completely cutting the knot – consisted in the fact that reason made it either **too long** or **too short** for the understanding, so that the understanding could never come out equal to reason's idea.

A 529/B 557

But in this we have overlooked an essential distinction governing the objects,^b i.e., among the concepts of the understanding which reason aspires to raise to ideas, namely, that according to our table of categories two of them signify **mathematical**, but the other two a **dynamical** synthesis of appearances. Until now this was all right, since just as in the general representation of all transcendental ideas we always stayed only **within appearance**, so in the two mathematical-transcendental ideas we had no **object** other than one in appearance. Now, however, that we are progressing to **dynamical** concepts of the understanding, insofar as they are to be suited to the idea of reason, this distinction comes to be important, and opens up for us an entirely new prospect in regard to the suit in which reason has become implicated; whereas up to now it has been **dismissed** as based on false presuppositions on both sides, now perhaps in the dynamical antinomy there is a presupposition that can coexist with the pretensions of reason, and since the judge may make good the defects in legal grounds that have been misconstrued on both sides, the case can be **mediated** to the satisfaction of both parties, which could not be done in the controversy about the mathematical antinomy.

A 530/B 558

The series of conditions are obviously all homogeneous to the extent that one looks solely at how far they **reach**: whether they conform to the idea, or are too big or too small for it. Yet the concept of understanding grounding these ideas contains either solely a **synthesis of homogeneous things** (which is presupposed in the case of every magnitude, in its composition as well as its division), or else a synthesis of **things not homogeneous**, which must be at least admitted in the case of the dynamical synthesis, in causal connection as well as in the connection of the necessary with the contingent.

Hence it is that in the mathematical connection of series of appearances, none other than a **sensible** condition can enter, i.e., only one that is itself a part of the series; whereas the dynamic series of sensible conditions, on the contrary, allows a further condition different in kind, one that is not a part of the series but, as merely **intelligible**, lies outside the series; in this way reason can be given satisfaction and the unconditioned can be posited prior to appearances without confounding

A 531/B 559

^a Object

^b Objekte

the series of appearances, which is always conditioned, and without any violation of principles of the understanding.

Now by the fact that the dynamical ideas allow a condition of appearances outside the series of appearances, i.e., a condition that is not appearance, something happens that is entirely different from the result of the mathematical antinomy. In the latter it was the cause of the fact that both dialectically opposed assertions had to be declared false. The thoroughly conditioned character of what is in the dynamical series, on the contrary, which is inseparable from them as appearances, is connected with a condition that is empirically unconditioned, but also **nonsensible**, which gives satisfaction to the **understanding** on one side and to **reason** on the other,* and while the dialectical arguments that seek unconditioned totality on the one side or the other collapse, the rational propositions, on the contrary, taken in such a corrected significance, may **both be true**; which could never have occurred with the cosmological ideas dealing merely with mathematically unconditioned unity, because with them there is no condition of the series of appearances that is not itself also an appearance, constituting as such a further member of the series.

A532/B560

III.

Resolution of the cosmological idea^a
of the totality of the derivation of occurrences in
the world
from their causes.

In respect of what happens, one can think of causality in only two ways: either according to **nature** or from **freedom**. The first is the connection of a state with a preceding one in the world of sense upon which that state follows according to a rule. Now since the **causality** of appearances rests on temporal conditions, and the preceding state, if it always existed, could not have produced any effect that first arose in time, the causality of the cause of what happens or arises has also

A531/B559

* For the understanding does not permit among **appearances** any condition that is itself empirically unconditioned. But if an **intelligible** condition, which therefore does not belong to the series of appearances as a member, may be thought for a conditioned (in appearance), without thereby interrupting in the least the series of empirical conditions, then such a condition could be admitted as **empirically unconditioned**, in such a way that no violation of the empirically continuous regress would occur anywhere.

^a *Ideen* (plural); since the headings of the other three sections give this word in the singular, we do the same here.

Section IX. On the empirical use of the regulative principle

arisen, and according to the principle of understanding it in turn needs a cause.^a

By freedom in the cosmological sense, on the contrary, I understand the faculty of beginning a state **from itself**,^b the causality of which does not in turn stand under another cause determining it in time in accordance with the law of nature. Freedom in this signification is a pure transcendental idea, which, first, contains nothing borrowed from experience, and second, the object of which also cannot be given determinately in any experience, because it is a universal law – even of the possibility of all experience – that everything that happens must have a cause, and hence that the causality of the cause, as **itself having happened** or arisen, must in turn have a cause; through this law, then, the entire field of experience, however far it may reach, is transformed into the sum total of mere nature. But since in such a way no absolute totality of conditions in causal relations^c is forthcoming, reason creates the idea of a spontaneity, which could start to act from itself, without needing to be preceded by any other cause that in turn determines it to action according to the law of causal connection.

It is especially noteworthy that it is this **transcendental** idea of **freedom** on which the practical concept of freedom is grounded, and the former constitutes the real moment of the difficulties in the latter,^d which have long surrounded the question of its possibility. **Freedom in the practical sense** is the independence of the power of choice from **necessitation** by impulses of sensibility. For a power of choice is **sensible** insofar as it is **pathologically affected** (through moving-causes of sensibility); it is called an **animal** power of choice (*arbitrium brutum*) if it can be **pathologically necessitated**. The human power of choice is indeed an *arbitrium sensitivum*,^e yet not *brutum*^f but *liberum*,^g because sensibility does not render its action necessary, but in the human being there is a faculty of determining oneself from oneself, independently of necessitation by sensible impulses.⁷⁹

It is easy to see that if all causality in the world of sense were mere nature, then every occurrence would be determined in time by another in accord with necessary laws, and hence – since appearances, insofar as they determine the power of choice, would have to render every action

A 533/B 561

practical vs
transcendental freedom

A 534/B 562

^a Kant notes: "The connection of effects and causes is not at all suited to things outside the world of sense; for how can God be a cause, be a being?" (E CLXXII, p. 51; 23:41)

^b von selbst

^c Kausalverhältnisse

^d dieser; a feminine dative pronoun, which therefore agrees only with "freedom" in this context; if the text were emended to read *diesem*, it would refer to "concept."

^e sensible power of choice

^f animal

^g free

practical requires
transcendental freedom

necessary as their natural consequence – the abolition of transcendental freedom would also simultaneously eliminate all practical freedom. For the latter presupposes that although something has not happened, it nevertheless **ought** to have happened, and its cause in appearance was thus not so determining that there is not a causality in our power of choice such that, independently of those natural causes and even opposed to their power and influence, it might produce something determined in the temporal order in accord with empirical laws, and hence begin a series of occurrences **entirely from itself**.

A535/B563

Here, then, as is generally found in the conflicts of reason with itself when it ventures beyond the boundaries of possible experience, the problem is really not **physiological** but **transcendental**. Hence the question of the possibility of freedom does indeed assail psychology, but since it rests merely on dialectical arguments of pure reason, its solution must be solely the business of transcendental philosophy. Now in order^a to put transcendental philosophy, which cannot decline to provide a satisfying answer here, in a position to give one, I must first seek, through the following remark, to determine more closely its procedure in dealing with this problem.

If appearances were things in themselves, and hence space and time were the forms of things in themselves, then the conditions would always belong to one and the same series as the conditioned, and from this there would also arise in the present case the antinomy common to all transcendental ideas, that this series must unavoidably turn out to be either too large or too small for the understanding. But the dynamical concepts of reason, with which we are concerned in this and the following number, have the peculiarity that since they do not consider their object as a magnitude but have to do only with its **existence**, one can thus abstract from the magnitude of the series of conditions, and with them it is merely a matter of the dynamical relation^b of condition to conditioned; thus the difficulty we encounter in the question about nature and freedom is only whether freedom is possible anywhere at all, and if it is, whether it can exist together with the universality of the natural law of causality, hence whether it is a correct disjunctive proposition that every effect in the world must arise **either** from nature **or** freedom, or whether instead **both**, each in a different relation, might be able to take place simultaneously in one and the same occurrence. The correctness of the principle of the thoroughgoing connection of all occurrences in the world of sense according to invariable natural laws is already confirmed as a principle of the transcendental analytic and will suffer violation. Thus the only question is whether, despite this, in re-

^a Fifth edition: "And in order . . ."

^b *Verhältnis*

Section IX. On the empirical use of the regulative principle

gard to the very same effect that is determined by nature, freedom might not also take place, or is this entirely excluded through that inviolable rule? And here the common but deceptive presupposition of the **absolute reality** of appearance immediately shows its disadvantageous influence for confusing reason. For if appearances are things in themselves, then freedom cannot be saved. Then nature is the completely determining cause, sufficient in itself, of every occurrence, and the condition for an occurrence is always contained only in the series of appearances that, along with their effect, are necessary under the law of nature. If, on the other hand, appearances do not count for any more than they are in fact, namely, not for things in themselves but only for mere representations connected in accordance with empirical laws, then they themselves must have grounds that are not appearances. Such an intelligible cause, however, will not be determined in its causality by appearances, even though its effects appear and so can be determined through other appearances. Thus the intelligible cause, with its causality, is outside the series; its effects, on the contrary, are encountered in the series of empirical conditions. The effect can therefore be regarded as free in regard to its intelligible cause, and yet simultaneously, in regard to appearances, as their result according to the necessity of nature; this is a distinction which, if it is presented in general and entirely abstractly, must appear extremely subtle and obscure, but in its application it will be enlightening. Here I have only wanted to note that since the thoroughgoing connection of all appearances in one context of nature is an inexorable law, it necessarily would have to bring down all freedom if one were stubbornly to insist on the reality of appearances. Hence even those who follow the common opinion about this matter have never succeeded in uniting nature and freedom with one another.

why transcendental
idealism saves
possibility of freedom

A 537/B 565

The possibility of causality through freedom unified with
the universal law of natural necessity.⁸⁰

A 538/B 566

I call **intelligible** that in an object of sense which is not itself appearance. Accordingly, if that which must be regarded as appearance in the world of sense has in itself a faculty which is not an object of intuition through which it can be the cause of appearances, then one can consider the **causality** of this being in two aspects, as **intelligible in its action** as a thing in itself, and as **sensible in the effects** of that action as an appearance in the world of sense. Of the faculty of such a subject we would accordingly form an empirical and at the same time an intellectual concept of its causality, both of which apply to one and the same effect.^a Think-

^a Kant adds in his copy of the first edition: "Transcendental definitions: The causality of representations of a being in respect of the objects of them is life. The determinability of the power of representation to this causality is the faculty of desire. This power of

ing of the faculty of an object of sense in this double aspect does not contradict any of the concepts we have to form of appearances and of a possible experience. For since these appearances, because they are not things in themselves, must be grounded in a transcendental object determining them as mere representations, nothing hinders us from ascribing to this transcendental object, apart from the property through which it appears, also another **causality** that is not appearance, even though its **effect** is encountered in appearance. But every effective cause must have a **character**, i.e., a law of its causality, without which it would not be a cause at all. And then for a subject of the world of sense we would have first an **empirical character**, through which its actions, as appearances, would stand through and through in connection with other appearances in accordance with constant natural laws, from which, as their conditions, they could be derived; and thus, in combination with these other appearances, they would constitute members of a single series of the natural order. Yet second, one would also have to allow this subject an **intelligible character**, through which it is indeed the cause of those actions as appearances, but which does not stand under any conditions of sensibility and is not itself appearance. The first one could call the character of such a thing in appearance, the second its character as a thing in itself.

Now this acting subject, in its intelligible character, would not stand under any conditions of time, for time is only the condition of appearances but not of things in themselves.⁸¹ In that subject no **action** would arise or perish, hence it would not be subject to the law of everything alterable in its time-determination that everything that happens must find its cause in the **appearances** (of the previous state). In a word, its causality, insofar as it is intellectual, would not stand in the series of empirical conditions that makes the occurrence in the world of sense necessary. This intelligible character could, of course, never be known^a immediately, because we cannot perceive anything except insofar as it appears, but it would have to be **thought** in conformity with the empirical character, just as in general we must ground appearances in thought through a transcendental object, even though we know nothing about it as it is in itself.

In its empirical character, this subject, as appearance, would thus be

representation, if it is reason, hence is the determinability of its causality in respect of objects, i.e., its faculty of desire [is] will. If pure reason has causality, then the will is a pure will, and its causality is called freedom.

"[Now] we cannot cognize [*a priori*] any causes, nor in general any intuitions corresponding to the categories, or relationships between them, but we must take all these from experience. Hence whether freedom is possible cannot be settled." (E CLXXIII, pp. 51-2; 23:41)

^a *gekannt*

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subject to the causal connection, in accordance with all the laws of determination; and to that extent it would be nothing but a part of the world of sense, whose effects, like those of any other appearance, would flow inevitably from nature. Just as external appearances influence it, as far as its empirical character, i.e., the law of its causality, is known through experience, all its actions would have to admit of explanation in accordance with natural laws, and all the requisites for a perfect and necessary determination of them would have to be encountered in a possible experience.

But in its intelligible character (even though we can have nothing more than merely the general concept of it), this subject would nevertheless have to be declared free of all influences of sensibility and determination by appearances; and since, in it, insofar as it is a **noumenon**, nothing **happens**, thus no alteration requiring a dynamical time-determination is demanded, and hence no connection with appearances as causes is encountered in its actions, this active being would to this extent be independent and free of all the natural necessity present solely in the world of sense. Of it one would say quite correctly that it begins its effects in the sensible world **from itself**, without its action beginning **in it** itself; and this would hold without allowing effects in the world of sense to begin from themselves, because in this world they are always determined beforehand by empirical conditions in the preceding time, but only by means of the empirical character (which is a mere appearance of the intelligible character), and they are possible only as a continuation of the series of natural causes. Thus freedom and nature, each in its full significance, would both be found in the same actions, simultaneously and without any contradiction, according to whether one compares them with their intelligible or their sensible cause.

A 541 / B 569

Clarification

of the cosmological idea of a freedom in combination with
the universal natural necessity.^a

A 542 / B 570

I have found it good first to sketch the silhouette of a solution to our transcendental problem, so that one might better survey the course of reason in solving it. Now we will set out separately the decisive mo-

^a Kant's notes: "What speculative philosophy could not succeed at, bringing reason out of the field of sensibility to something real outside it, practical reason is able to do, namely, giving an existence that is not sensible, [and] through laws that are grounded on reason. This is morality, if one admits it through freedom."

"Otherwise we would assume that there is no intuition at all without [the] senses and hence also no things outside the objects of sense belonging to intuition." (E CLXXIV, p. 52; 23:41-2)

ments on which the solution really depends, and take each particular moment into consideration.

The law of nature that everything that happens has a cause, that since the causality of this cause, i.e., the **action**, precedes in time and in respect of an effect that has **arisen** cannot have been always but must have **happened**, and so must also have had its cause among appearances, through which it is determined, and consequently that all occurrences are empirically determined in a natural order – this law, through which alone appearances can first constitute one **nature** and furnish objects of one experience, is a law of the understanding, from which under no pretext can any departure be allowed or any appearance be exempted; because otherwise one would put this appearance outside of all possible experience, thereby distinguishing it from all objects of possible experience and making it into a mere thought-entity and a figment of the brain.

But although it looks as if there is solely a chain of causes, permitting no **absolute totality** at all in the regress to their conditions, this reservation does not detain us at all; for it has already been removed in our general judgment on the antinomy of reason occurring when reason proceeds to the unconditioned in the series of appearances. If we would give in to the deception of transcendental realism, then neither nature nor freedom would be left. Here the question is only: If in the whole series of all occurrences one recognizes purely^a natural necessity, is it nevertheless possible to regard the same occurrence, which on the one hand is a mere effect of nature, as on the other hand an effect of freedom; or will a direct contradiction between these two kinds of causality be found?

Among the causes in appearance there can surely be nothing that could begin a series absolutely and from itself. Every action, as appearance, insofar as it produces an occurrence, is itself an occurrence, or event, which presupposes another state in which its cause is found; and thus everything that happens is only a continuation of the series, and no beginning that would take place from itself is possible in it. Thus in the temporal succession all actions of natural causes are themselves in turn effects, which likewise presuppose their causes in the time-series. An **original** action, through which something happens that previously was not, is not to be expected from the causal connection of appearances.

But then if the effects are appearances, is it also necessary that the causality of their cause, which (namely, the cause) is also appearance, must be solely empirical?⁸² Is it not rather possible that although for every effect in appearance there is required a connection^b with its cause in accordance with laws of empirical causality, this empirical causality

^a lauter

^b Verknüpfung

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itself, without the least interruption of its connection^a with natural causes, could nevertheless be an effect of a causality that is not empirical, but rather intelligible, i.e., an original action of a cause in regard to appearances, which to that extent is not appearance but in accordance with this faculty intelligible, even though otherwise, as a link in the chain of nature, it must be counted entirely as belonging to the world of sense?

We need the principle^b of the causality of appearances in order to be able to seek for and specify the natural conditions, i.e., causes in appearance, for natural occurrences. If this is conceded, and not weakened by any exceptions, then the understanding, which in its empirical use sees nothing but nature in all events and is justified in doing so, has everything it could demand, and physical explanations proceed on their own course unhindered. Now this is not in the least impaired, supposing also that it is in any case merely invented, if one assumes that among natural causes there are also some that have a faculty that is only intelligible, in that its determination to action never rests on empirical conditions but on mere grounds of the understanding, as long as the **action in the appearance** of this cause accords with all the laws of empirical causality. For in this way the acting subject, as *causa phaenomenon*,^c would have all its actions linked with inseparable dependence to the natural chain of causes, and only the *phaenomenon* of this subject (with all its causality in appearance) would contain certain conditions that, if one would ascend from empirical objects to transcendental ones, would have to be regarded as merely intelligible. For if we follow the rule of nature only in that which might be the cause among appearances, then we need not worry about what sort of ground is thought for these appearances and their connection in the transcendental subject, which is empirically unknown to us. This intelligible ground does not touch the empirical questions at all, but may have to do merely with thinking in the pure understanding; and, although the effects of this thinking and acting of the pure understanding are encountered among appearances, these must nonetheless be able to be explained perfectly from their causes in appearance, in accord with natural laws, by following its merely empirical character as the supreme ground of explanation; and the intelligible character, which is the transcendental cause of the former, is passed over as entirely unknown, except insofar as it is indicated through the empirical character as only its sensible sign. Let us apply this to experience. The human being is one of the appearances in the world of sense, and to that extent also one of the natural causes whose

A 545 / B 573

A 546 / B 574

^a Zusammenhang

^b Satzes

^c phenomenal cause

causality must stand under empirical laws. As such he must accordingly also have an empirical character, just like all other natural things. We notice it through powers and faculties which it expresses in its effects. In the case of lifeless nature and nature having merely animal life, we find no ground for thinking of any faculty which is other than sensibly conditioned. Yet **the human being, who is otherwise acquainted with the whole of nature solely through sense, knows^a himself also through pure apperception, and indeed in actions and inner determinations which cannot be accounted at all among^b impressions of sense; he obviously is in one part phenomenon, but in another part, namely in regard to certain faculties, he is a merely intelligible object, because the actions of this object cannot at all be ascribed^c to the receptivity of sensibility.** We call these faculties understanding and reason; chiefly the latter is distinguished quite properly and preeminently from all empirically conditioned powers, since it considers its objects merely according to ideas and in accordance with them determines the understanding, which then makes an empirical use of its own concepts (even the pure ones).

A 547/B 575

imperatives & ought

Now that this reason has causality,^d or that we can at least represent something of the sort in it, is clear from the **imperatives** that we propose^e as rules to our powers of execution in everything practical.⁸³ **The ought** expresses a species of necessity and a connection with grounds which does not occur anywhere else in the whole of nature. In nature the understanding can cognize only **what exists**, or has been, or will be. It is impossible that something in it **ought to be** other than what, in all these time-relations,^f it in fact is; indeed, the **ought**, if one has merely the course of nature before one's eyes, has no significance whatever. We cannot ask at all what ought to happen in nature, any more than we can ask what properties a circle ought to have; but we must rather ask what happens in nature, or what properties the circle has.

A 548/B 576

'ought' implies 'can'

Now this "ought" expresses a possible action, the ground of which is nothing other than a mere concept, whereas the ground of a merely natural action must always be an appearance. Now of course **the action must be possible under natural conditions if the ought is directed to it;** but these natural conditions do not concern the determination of the power of choice itself, but only its effect and result in appearance. How-

^a erkennt^b gar nicht zum . . . zählen kann^c gar nicht zur . . . gezählt werden kann^d Kant notes: "i.e., is the cause of actuality of its objects [Objecte]. This causality is called the will. But in transcendental philosophy one abstracts from the will." (E CLXXV, p.

52; 23:50)

^e aufgeben^f Zeitverhältnisse

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ever many natural grounds or sensible stimuli there may be that impel me to **will**, they cannot produce the **ought** but only a willing that is yet far from necessary but rather always conditioned, over against which the ought that reason pronounces sets a measure and goal, indeed, a prohibition and authorization.^a Whether it is an object of mere sensibility (the agreeable) or even of pure reason (the good), reason does not give in to those grounds which are empirically given, and it does not follow the order of things as they are presented in intuition, but with complete spontaneity it makes its own order according to ideas, to which it fits the empirical conditions and according to which it even declares actions to be necessary that yet have not occurred and perhaps will not occur, nevertheless presupposing of all such actions that reason could have causality in relation to them; for without that, it would not expect its ideas to have effects in experience.

The order of reason

Now let us stop at this point and assume it is at least possible that reason actually does have causality in regard to appearances: then even though it is reason, it must nevertheless exhibit an empirical character, because every cause presupposes a rule according to which certain appearances follow as effects, and every rule requires a uniformity in its effects, grounding the concept of a cause (as a faculty), which, insofar as it must come to light from mere appearances, we could call the empirical character, which is constant, while its effects appear in alterable shapes, according to the differences among the conditions that accompany and in part limit it.

A 549 / B 577

Thus every human being has an empirical character for his power of choice, which is nothing other than a certain causality of his reason, insofar as in its effects in appearance this reason exhibits a rule, in accordance with which one could derive^b the rational grounds and the actions themselves according to their kind and degree, and estimate^c the subjective principles^d of his power of choice. Because this empirical character itself must be drawn from appearances as effect, and from the rule which experience provides, all the actions of the human being in appearance are determined in accord with the order of nature by his empirical character and the other cooperating causes; and if we could investigate all the appearances of his power of choice down to their basis, then there would be no human action that we could not predict with certainty, and recognize as necessary given its preceding conditions. Thus in regard to this empirical character there is no freedom, and according to this character we can consider the human being solely

A 550 / B 578

^a Ansehen

^b abnehmen

^c beurtheilen

^d Prinzipien

by **observing**, and, as happens in anthropology, by trying to investigate the moving causes of his actions physiologically.

But if we consider the very same actions in relation to reason, not, to be sure, in relation to speculative reason, in order to **explain** them as regards their origin, but insofar as reason is the cause of **producing** them by themselves – in a word, if we compare them with reason in a **practical** respect – then we find a rule and order that is entirely other than the natural order. For perhaps everything that **has happened** in the course of nature, and on empirical grounds inevitably had to happen, nevertheless **ought not to have happened**. At times, however, we find, or at least believe we have found, that the ideas of reason have actually proved their causality in regard to the actions of human beings as appearances, and that therefore these actions have occurred^a not through empirical causes, no, but because they were determined by grounds of reason.

A 551/B 579

Suppose now that one could say reason has causality in regard to appearance; could reason's action then be called free even though in its empirical character (in the mode of sense)^b it is all precisely determined and necessary? The empirical character is once again determined in the intelligible character (in the mode of thought).^c We are not acquainted with the latter, but it is indicated through appearances, which really give only the mode of sense (the empirical character) for immediate cognition.* Now the action, insofar as it is to be attributed to the mode of thought as its cause, nevertheless does not follow from it in accord with empirical laws, i.e., in such a way that it is **preceded** by the conditions of pure reason, but only their effects in the appearance of inner sense **precede** it. Pure reason, as a merely intelligible faculty, is not subject to the form of time, and hence not subject to the conditions of the temporal sequence. The causality of reason in the intelligible character **does not arise** or start working at a certain time in producing an effect.

A 552/B 580

For then it would itself be subject to the natural law of appearances, to the extent that this law determines causal series in time, and its causal-

A 551/B 579

* The real morality of actions (their merit and guilt), even that of our own conduct, therefore remains entirely hidden from us. Our imputations can be referred only to the empirical character. How much of it is to be ascribed to mere nature and innocent defects of temperament or to its happy constitution (*merito fortunae*)^d this no one can discover,^e and hence no one can judge it with complete justice.

^a geschehen

^b Sinnesart

^c Denkungsart

^d to the merit of fortune

^e ergründen

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ity would then be nature and not freedom. Thus we could say that if reason can have causality in regard to appearances, then it is a faculty **through** which the sensible condition of an empirical series of effects first begins. For the condition that lies in reason is not sensible and does not itself begin. Accordingly, there takes place here what we did not find in any empirical series: that the **condition** of a successive series of occurrences could itself be empirically unconditioned. For here the condition is **outside** the series of appearances (in the intelligible) and hence not subject to any sensible condition or to any determination of time through any passing cause.

Nevertheless, this very same cause in another relation also belongs to the series of appearances. The human being himself is an appearance. His power of choice has an empirical character, which is the (empirical) cause of all his actions. There is not one of these conditions determining human beings according to this character which is not contained in the series of natural effects and does not obey the laws of nature according to which no empirically unconditioned causality is present among the things that happen in time. Hence no given action (since it can be perceived only as appearance) can begin absolutely from itself. But of reason one cannot say that before the state in which it determines the power of choice, another state precedes in which this state itself is determined. For since reason itself is not an appearance and is not subject at all to any conditions of sensibility, no temporal sequence takes place in it even as to its causality, and thus the dynamical law of nature, which determines the temporal sequence according to rules, cannot be applied to it.

A 553/B 581

Reason is thus the persisting condition of all voluntary actions under which the human being appears. Even before it happens, every one of these actions is determined beforehand in the empirical character of the human being. In regard to the intelligible character, of which the empirical one is only the sensible schema, no **before** or **after** applies, and every action, irrespective of the temporal relation in which it stands to other appearances, is the immediate effect of the intelligible character of pure reason; reason therefore acts freely, without being determined dynamically by external or internal grounds temporally preceding it in the chain of natural causes, and this freedom of reason can not only be regarded negatively, as independence from empirical conditions (for then the faculty of reason would cease to be a cause of appearances), but also indicated positively by a faculty of beginning a series of occurrences from itself, in such a way that in reason itself nothing begins, but as the unconditioned condition of every voluntary action, it allows of no condition prior to it in time, whereas its effect begins in the series of appearances, but can never constitute an absolutely first beginning in this series.

A 554/B 582

malicious lie example

A555/B583

In order to clarify the regulative principle^a of reason through an example of its empirical use – not in order to confirm it (for such proofs are unworkable for transcendental propositions) – one may take a voluntary action, e.g. a malicious lie, through which a person^b has brought about a certain confusion in society; and one may first investigate its moving causes, through which it arose, judging on that basis how the lie and its consequences could be^c imputed to the person. With this first intent one goes into the sources of the person's empirical character, seeking them in a bad upbringing, bad company, and also finding them in the wickedness of a natural temper^d insensitive to shame, partly in carelessness and thoughtlessness; in so doing one does not leave out of account the occasioning causes. In all this one proceeds as with any investigation in the series of determining causes for a given natural effect. Now even if one believes the action to be determined by these causes, one nonetheless blames the agent, and not on account of his unhappy natural temper, not on account of the circumstances influencing him, not even on account of the life he has led previously; for one presupposes that it can be entirely set aside how that life was constituted, and that the series of conditions that transpired might not have been, but rather that this deed could be regarded as entirely unconditioned in regard to the previous state, as though with that act the agent had started a series of consequences entirely from himself. This blame is grounded on the law of reason, which regards reason as a cause that, regardless of all the empirical conditions just named, could have and ought to have determined the conduct of the person to be other than it is. And indeed one regards the causality of reason not as a mere concurrence with other causes,^e but as complete in itself, even if sensuous incentives were not for it but were indeed entirely against it; the action is ascribed to the agent's intelligible character: now, in the moment when he lies, it is entirely his fault; hence reason, regardless of all empirical conditions of the deed, is fully free, and this deed is to be attributed entirely to its failure to act.^f

In this judgment of imputation, it is easy to see that one has the thoughts that reason is not affected at all by that sensibility, that it does

^a *Princip*^b *Mensch*^c *könne* (singular present subjunctive, indicating that the lie is the subject); in the first edition, the text reads *können* (plural, indicating that the consequences as well are included in the subject of the verb along with the lie).^d *Naturells*^e *Konkurrenz*. Although in modern German this means “competition” Kant used this term as an equivalent of *concursus*; in a theological context, it means divine assistance.^f *ihrer Unterlassung*; “reason” is the only grammatically possible antecedent of the possessive pronoun.

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A556/B584

not alter (even if its appearances, namely the way in which it exhibits its effects, do alter), that in it no state precedes that determines the following one, and hence that reason does not belong at all in the series of sensible conditions which make appearances necessary in accordance with natural laws. It, reason, is present to all the actions of human beings in all conditions of time, and is one and the same, but it is not itself in time, and never enters into any new state in which it previously was not; in regard to a new state, reason is **determining** but not **determinable**. Therefore one cannot ask: Why has reason not determined **itself** otherwise? But only: Why has it not determined **appearances** otherwise through its causality? But no answer to this is possible. For another intelligible character would have given another empirical one; and if we say that regardless of the entire course of life he has led up to that point, the agent could still have refrained from^a the lie, then this signifies only that it stands immediately under the power^b of reason, and in its causality reason is not subject to any conditions of appearance or of the temporal series; the difference in time might be a chief difference in appearances respecting their relations to one another, since these are not things in themselves and hence not causes in themselves, but it makes no difference to action in its relation to reason.

Thus in the judgment of free actions, in regard to their causality, we can get only as far as the intelligible cause, but we cannot get beyond it; we can know^c that actions could be free, i.e., that they could be determined independently of sensibility, and in that way that they could be the sensibly unconditioned condition of appearances. But why the intelligible character gives us exactly these appearances and this empirical character under the circumstances before us, to answer this surpasses every faculty of our reason, indeed it surpasses the authority of our reason even to ask it; it is as if one were to ask why the transcendental object of our outer sensible intuition gives precisely only the intuition of **space** and not some other one. Yet the problem which we had to solve does not obligate us to answer these questions, for it was only this: Do freedom and natural necessity in one and the same action contradict each other? And this we have answered sufficiently when we showed that since in freedom a relation is possible to conditions of a kind entirely different from those in natural necessity, the law of the latter does not affect the former; hence each is independent of the other, and can take place without being disturbed by the other.

A557/B585

* * *

^a *unterlassen*

^b *Macht*

^c *erkennen*

A558/B586

It should be noted that here we have not been trying to establish the **reality** of freedom, as a faculty that contains the causes of appearance in our world of sense. For apart from the fact that this would not have been any sort of transcendental investigation having to do merely with concepts, it could not have succeeded, since from experience we can never infer something that does not have to be thought in accord with the laws of experience. Further, we have not even tried to prove the **possibility** of freedom; for this would not have succeeded either, because from mere concepts *a priori* we cannot cognize anything about the possibility of any real ground or any causality. Freedom is treated here only as a transcendental idea, through which reason thinks of the series of conditions in appearance starting absolutely through what is sensibly unconditioned, but thereby involves itself in an antinomy following its own laws, which it prescribes for the empirical use of the understanding. [To show] that this antinomy rests on a mere illusion, and that nature at least **does not conflict with** causality through freedom – that was the one single thing we could accomplish, and it alone was our sole concern.^a

A559/B587

IV.

Solution of the cosmological idea
of the totality of dependence of appearances
regarding their existence in general.

In the preceding number we considered the changes in the world of sense in their dynamical series, where each is subordinated to another as its cause. Now this series of states serves only to lead us to an existence that could be the highest condition of everything alterable, namely to the **necessary being**. Here we deal not with unconditioned causality, but with the unconditioned existence of the substance itself. Thus the series we have before us is really only a series of concepts and not of intuitions, insofar as one intuition is the condition of another.

One easily sees, however, that since everything in the sum total of appearances is alterable, hence conditioned in its existence, there could not be any unconditioned member anywhere in the series of dependent existences whose existence would be absolutely necessary; and hence that if appearances were things in themselves, and so just for this reason their condition always belong to one and the same series of intuitions, then a necessary being could never occur as a condition of the existence of appearances in the world of sense.

But the dynamic regress has in itself this peculiar feature, distin-

^a Kant notes: "Morality is that which, if it is correct, positively presupposes freedom. "If the former is true, then freedom is proved." (E CLXXVI, p. 52; 23:42)

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guishing it from the mathematical one: that since the latter really has to do only with the combination of parts into a whole, or with the dissolution of a whole into its parts, the conditions of this series always have to be seen as parts of it, hence as being of the same kind, and consequently as appearances, whereas in the former regress, which has to do not with the possibility of an unconditioned whole or an unconditioned part of a given whole but with the derivation of a state from its cause or of the contingent existence of a substance itself from the necessary existence of one, the condition need not necessarily constitute one empirical series along with the conditioned.

Therefore there remains only one way out of the apparent antinomy lying before us: since, namely, both the conflicting propositions can be true at the same time in a different relation in such a way that all things in the world of sense are completely contingent, hence having always only an empirically conditioned existence, there nevertheless occurs a non-empirical condition of the entire series, i.e., an unconditionally necessary being. For this, as an intelligible condition, would not belong to the series as a member of it (not even as the supreme member) at all, and would not make any member of the series unconditionally necessary, but it would leave the entire world of sense to the empirically conditioned existence which runs through all its members. Hence this way of grounding an unconditioned existence would be distinguished from the empirically unconditioned causality (of freedom) in the previous article in that in the case of freedom, the thing itself as cause (*substantia phaenomenon*)^a would nevertheless belong to the series of conditions, and only its **causality** would be thought as intelligible, but here the necessary being would have to be thought of as entirely outside the series of the world of sense (as an *ens extramundanum*)^b and merely intelligible; this is the only way of preventing it from being subjected to the law of the contingency and dependence of all appearances.⁸⁴

The **regulative principle^c of reason** in regard to this problem of ours is therefore that everything in the world of sense has an empirically conditioned existence, and there cannot be an unconditioned necessity in it in regard to any of its properties, that there is no member of the series such that one does not always expect an empirical condition for it in a possible experience, and for which one must seek for such a condition as far as one can, and nothing justifies us in deriving any existence from a condition outside the empirical series, or indeed in taking anything in the series itself to be absolutely independent and self-sufficient; nevertheless, this is not in any way to deny that the entire series could

A 561 / B 589

B 562 / B 590

^a phenomenal substance

^b a being outside the world

^c *Prinzip*

be grounded in some intelligible being (which is therefore free of every empirical condition, containing, rather, the ground of the possibility of all these appearances).

But here it is not at all the intent^a to prove the unconditionally necessary existence^c of any being, or even to ground the possibility of a merely intelligible condition of existence in the world of sense on it; rather, just as we limit reason so that it does not abandon the thread of the empirical conditions, and stray into **transcendent** grounds of explanation which do not admit of any exhibition *in concreto*, so on the other side we limit the law of the merely empirical use of the understanding, so that it does not decide the possibility of things in general, **nor** declare the intelligible, even though it is not to be used by us in explaining appearances, **to be impossible**. Thus it has been shown only that the thoroughgoing contingency of all natural things and all of nature's (empirical) conditions can very well coexist with the optional^b presupposition of a necessary, even though merely intelligible condition, and thus that there is no true contradiction between these assertions, hence they can **both be true**. Such an absolutely necessary being of the understanding may always be impossible in itself, yet this can by no means be inferred from the universal contingency and dependence of everything belonging to the world of sense, nor can it be inferred from the principle^c that we should not stop with any individual member of it and appeal to a cause outside the world. Reason goes its way in its empirical use, and a special way in a transcendental use.

The world of sense contains nothing but appearances, but these are mere representations, which are once again always sensibly conditioned, and, since here we never have to do with things in themselves as our objects, it is no wonder that we are never justified in making a leap from one member of the empirical series, whatever it might be, outside the connections of sensibility, just as if these members were things in themselves existing outside their transcendental ground, which one might leave behind in seeking the cause of their existence outside themselves; of course that would have to happen with contingent **things**, but not with mere **representations** of things, whose contingency itself is only a phenomenon, and can lead to no other regress but the one determining phenomena, i.e., the one which is empirical. But to think of an intelligible ground for appearances, i.e., for the world of sense, and of appearances freed from the contingency of the world of sense, is opposed neither to the unlimited empirical regress in the series of appearances nor to their thoroughgoing contingency. But that is also the

^a *Meinung*

^b *willkürlich*

^c *Princip*

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only thing we had to do to remove the apparent antinomy, and it could be done only in this way. For if for every conditioned the condition is always sensible (in its existence), and therefore something belonging to the series, then the condition is itself once again conditioned (as the antithesis of the fourth antinomy shows). Thus either reason, in demanding the unconditioned, must remain in conflict with itself, or else this unconditioned must be posited outside the series in the intelligible realm, where necessity is neither demanded nor permitted by any empirical condition, and thus in respect of appearances it is unconditionally necessary.

The empirical use of reason (in regard to the conditions of existence in the world of sense) is not affected by the admission of a merely intelligible being; rather it proceeds, according to the principle^a of thoroughgoing contingency, from empirical conditions to higher ones, which are likewise always empirical. But just as little does this regulative principle exclude the assumption of an intelligible cause which is not in the series, when it is a matter of the pure use of reason (in regard to its ends). For here the intelligible cause signifies only the ground, for us transcendental and unknown, of the possibility of the sensible series in general, whose existence, independent of all conditions of the latter and unconditionally necessary in regard to it, is not at all opposed to the unbounded contingency of the former, and is therefore also not opposed to the regress, which is never ended, in the series of empirical conditions.

A565/B593

Concluding remark to the entire antinomy of pure reason.

As long as we, with our concepts of reason, have as our object merely the totality of the conditions in the world of sense, and what service reason can perform in respect of them, our ideas are transcendental but still **cosmological**. But as soon as we posit the unconditioned (which is what is really at issue) in that which lies outside the sensible world, and hence in that which is outside all possible experience, then the ideas come to be **transcendent**; they do not serve merely to complete the empirical use of reason (which always remains an idea, never to be completely carried out, but nevertheless to be followed), rather they separate themselves entirely from it and make themselves into objects whose matter is not drawn from experience, and whose objective reality rests not on the completion of the empirical series but on pure concepts *a priori*. Such transcendent ideas have a merely intelligible object, which

^a *Princip*

A566/B594

one is of course allowed to admit as a transcendental object,^a but about which one knows nothing; but for the assumption of such an object, in thinking it as a thing determinable by its distinguishing and inner predicates, we have on our side neither grounds of its possibility (since it is independent of all concepts of experience) nor the least justification, and so it is a mere thought-entity. Nevertheless, among the cosmological ideas, the one occasioning the fourth antinomy presses us to venture so far as to take this step. For the existence of appearances, not grounded in the least within itself but always conditioned, demands that we look around us for something different from all appearances, hence for an intelligible object, with which this contingency would stop. But if we once take the liberty of assuming a reality subsisting by itself^b outside the entire field of sensibility, then appearances are regarded^c only as contingent ways intelligible objects are represented by beings who are themselves intelligences; and because of this, nothing is left for us but the analogy by which we utilize concepts of experience in making some sort of concept of intelligible things, with which we have not the least acquaintance as they are in themselves. Because we cannot become acquainted with the contingent except through experience, but are here concerned with things which are not to be objects of experience at all, we have to derive our acquaintance^d with them from what is necessary in itself, from pure concepts of things in general.^e Thus the first step we take beyond the sensible world compels us, in acquiring new knowledge,^f to begin with the investigation of the absolutely necessary being, and to derive from the concepts of it the concepts of all things insofar as they are merely intelligible; we will set about this attempt in the following chapter.

^a Object^b für sich^c Reading, with Erdmann, *anzusehen sind* for *anzusehen*.^d Kenntnis^e Kant adds in his copy of the first edition: "Freedom makes for the greatest difficulty, because it simultaneously combines a being that belongs to the sensible world with the intellectual according to a given law, and thereby also with God." (E CLXXVII, p. 52; 23:42)^f Kenntnisse

the soul's existence, which he grounds on the Cartesian *cogito* (*Psychologia empirica* §§ 12–15, *Gesammelte Werke* II.5 [Hildesheim: Olms, 1968]). *Psychologia rationalis* deals with the “nature and essence” of the soul, and especially the functions of the intellect (*Psychologia rationalis*, *Gesammelte Werke* II.6). See also Baumgarten, *Metaphysica* §§ 504–18.

- 44 As mentioned in note 1 above, there are a number of Kant's reflections giving evidence of his discovery of the antinomies in 1769 (e.g. R 3936–37, 17:355) and the antinomies predominate in Kant's first outlines of the “Dialectic” in R 4756–60 (1775–77, 17:699–713). Other important notes from this period are R 4742 (17:694) and R 4780 (17:725). From the 1780s, important reflections on the antinomies include R 5959–61 (18:399–401), R 5962 (1785–89, 18:401–5), R 5970 (1783–84, 18:408–9), R 5973 (1783–84, 18:411–12) and R 5979 (1785–88, 18:413–14).
- 45 With these two paragraphs, compare R 4454 (1772? 1773–75? 17:557).
- 46 “A WORLD is a series (multitude, whole) of actual finite things which are not parts of one another” (Baumgarten, *Metaphysica* § 354); “In every world there are actual parts, which are singulars connected into a whole” (*Metaphysica* § 357).
- 47 For the source of this principle in Wolffian cosmology, see following note.
- 48 “Because the parts of the world are either simultaneous or successive, if they are posited outside one another, they are connected in the world either by time or by space or by both” (Baumgarten, *Metaphysica* § 374; cf. § 238). In four successive paragraphs, Baumgarten considers the parts of the world connected in space and time (first antinomy) (*Metaphysica* § 374), connected causally (third antinomy) (*Metaphysica* § 375), connected as actual parts (second antinomy) (*Metaphysica* § 376), and as possibles forming a contingent whole (fourth antinomy) (*Metaphysica* § 377). He concludes that either there is no world, or that it must consist in a multitude or series forming a unity (*Metaphysica* § 379). This says, in effect, that if the (conditioned) members of each of the identified series are given, then the whole (the unconditioned) must also be given. At the same time, Baumgarten notes that because it is so constituted, the unity of the world is a “hypothetical unity” (*Metaphysica* § 362) as distinct from an “absolute” unity (*Metaphysica* § 76).
- 49 “A PROGRESS (regress) TO INFINITY is a series of contingent entities posited outside one another, of which one is the cause of the other” (Baumgarten, *Metaphysica* § 380).
- 50 Baumgarten argues that the world must consist of simple parts or monads (Baumgarten, *Metaphysica* §§ 392–405). Compare Leibniz, *Monadology* § 1.
- 51 Compare Baumgarten, *Metaphysica* §§ 388–90, which argues (no doubt with Spinoza in mind) that the world is not a substance, its parts are not accidents, and an infinite substance is not a unique substance.
- 52 Compare Baumgarten, *Metaphysica* §§ 358, 380–1.
- 53 Baumgarten emphasizes the contingency both of the parts of the world and of the world as a whole (*Metaphysica* §§ 361–64). He argues that if we suppose the world to be necessary, then we must suppose that the determination of its parts is also necessary, hence that the parts themselves must be necessary and therefore infinite (which contradicts the nature of parts) (*Metaphysica* § 361).

- 54 In addition to the reflections already cited in notes 1 and 44, see also R 4090 (1769–70, 17:412), R 4134 (1769–70, 17:428–30), R 4210 (1770–77, 17:457), R 4522 (1772–76, 17:580–1), R 4525 (1772–76, 17:582), R 4529 (1772? 1773–75? 17:583–4), R 4708 (1773–79, 17:682–3) and R 4717 (1773–75? 1775–77? 17:685).
- 55 This argument has a long history in the Western philosophical-theological tradition, where a number of Christian philosophers used it to demonstrate the origin of the world at a finite past time, contrary to the pagan (especially Aristotelian) view that the world had no beginning in time. But it is not clear from what source Kant derived it (or whether he reinvented it himself). The argument appears to have been first invented by John Philoponus (c.490–c.570). In the middle ages, it was most closely associated with the name of St. Bonaventure (c.1217–1274). But Bonaventure seems to have gotten it from his older Franciscan contemporary Richard Rufus of Cornwall (d. after 1259), who does not seem to have known the works of Philoponus and may have devised the argument anew around 1235. The argument was criticized by a number of medieval philosophers (notably St. Thomas Aquinas and William of Ockham) who held that the creation of the world at a finite past time was indemonstrable by reason and knowable only through revelation. Kant, however, does not appear to have been directly acquainted with any of these medieval sources, nor do we know of any specific source through which such knowledge might have been mediated. One early modern proponent of the argument with whose works Kant might have been (directly or indirectly) acquainted was the Cambridge theologian Richard Bentley (1662–1742): “For, consider the *present* revolution of the Earth . . . God Almighty, if he so pleaseth, may continue this motion to perpetuity in infinite revolutions to come; because futurity is inexhaustible, and can never be spent or run out by *past and present* moments. But then, if we look backwards from this present revolution, we may apprehend the impossibility of infinite revolutions on that side; because all are *already* past, and so were once actually *present*, and consequently are finite . . . For surely we cannot conceive a preteriteness (if I may say so) still backwards in *infinitum*, that never was present, as we can endless futurity that never will be present. So that one is potentially infinite, yet nevertheless the other is actually finite” (Bentley, *Sermons Preached at Boyle's Lecture* [1692], ed. A. Dyce [London, 1838], p. 134).
- 56 Compare Kant's argument for the “First Analogy” (especially A188/B231) and the second-edition “Refutation of Idealism” (B275–8 and Bxxxix–xli note). The conclusion of this argument is the same as that of an *ad hominem* argument Leibniz presents against the Newtonian concept of absolute space (Leibniz, *Correspondence with Clarke*, 7:373).
- 57 “Absolute space” is an allusion to the Newtonian theory of space (cf. “Transcendental Aesthetic,” A23/B38, B 69–72, and *Metaphysical First Grounds of Natural Science*, 4:481).
- 58 This “dogmatic” formulation is close to the negation of Baumgarten's definition of “comparative magnitude” at *Metaphysica* § 161.
- 59 Leibniz criticized the apparent implication of the Newtonian view, that there could be infinite empty space (Leibniz, *Correspondence with Clarke*, 7:368).

- 60 On the second antinomy, see especially R 4534 (1772–78, 17:585–6).
- 61 This argument bears close comparison with the opening sections of Leibniz's *Monadology*: “1. The Monad, which we shall discuss here, is nothing but a simple substance that enters into composites – simple, that is, without parts. 2. And there must be simple substances, since there are composites; for the composite is nothing more than a collection, or aggregate, of simples” (Leibniz, *Monadology* §§ 1–2).
- 62 This term is no doubt intended to include Leibniz (see the two previous notes) and the Wolffians (see Baumgarten, *Metaphysica* §§ 230–45, 396–405). It might also be applied to the view put forward in the *Theoria philosophiae naturalis* (Vienna, 1758) by the Ragusan Jesuit Rudjer Bosković (1711–1787). But the view criticized here actually seems closest to that held by Kant himself in his *Physical Monadology* of 1756 (1:473–88; see also *Metaphysical First Grounds of Natural Science*, 4:504).
- 63 The term “monad” had been used earlier by Henry More (1614–1687). But it is likely that Leibniz's most direct source was More's student Lady Anne (Finch), Viscountess Conway (1631–1679), with whose philosophy Leibniz was acquainted through her physician and publicist, and Leibniz's correspondent, Francis Mercurius van Helmont (1614–1698).
- 64 Numerous reflections bear specifically on the third antinomy. These include R 3922 (17:346–7), R 3976 (1769, 17:372–3), R 4225–7 (1769–70, 17:464–6), R 4338 (1770–71, 17:510–11), R 4723 (1773–75, 17:688), R 5413 (1776–78, 18:176), R 5612–19 (1778–79, 18:252–8), R 5829 (1783–84, 18:365), R 5964 (1783–84, 18:405–6), R 5972 (1780s, 18:410), and R 5976–8 (1783–84, 18:412–13).
- 65 The best-known doctrine of a first mover was that of Aristotle (*Physics*, book 8 (256a1–267b27), *Metaphysics*, book 12 (1071b3–1076a5)). Compare Baumgarten, *Metaphysica* § 300.
- 66 See R 4039 (1769–70, 17:393–4), R 4117 (1769, 17:423), R 4179–80 (1769–70, 17:445–6), R 4242–53 (1769–70, 17:476–83), R 5263 (1776–78, 18:135–6) and R 5949 (1780s, 18:397).
- 67 Jean-Jacques Dortous de Mairan (1678–1771) succeeded Fontenelle as perpetual secretary of the Royal Academy of Sciences in Paris in 1740 and remained in that post until his death. He wrote on a variety of subjects in physics and natural sciences, including his *Dissertation on Ice* (1715), *Physical and Historical Treatise on the Aurora Borealis* (1733), *Dissertation on the Estimation of Moving Forces of Bodies* (1741), and *Letter to Mme Chatelet on the Question of Living Forces* (1741). Mairan also published many papers in the *Journal des Scavans* and the *Recueil de l'Académie royale des sciences*, both of which he also edited. According to Ferdinand Alquié, *Oeuvres philosophiques de Emanuel Kant* (Paris: Gallimard, 1980–86), 1:1692, the treatise referred to here was published in the *Recueil* in 1747. However, we have been unable to verify this reference.
- 68 One of the first reflections to connect theoretical propositions and the interest of practical reason in this way is R 5109 (1776–78, 18:90–2).
- 69 Kant opposes Plato and Epicurus again regarding the object of knowledge (A853–4/B881–2). Cf. *Logic*, 9:29–30.
- 70 J. H. Lambert (1728–1777), “Memoir to the Berlin Academy on Transcen-

- dental Magnitudes" (1768), in *Beiträge zum Gebrauch der Mathematik und deren Anwendung* (Contributions to the Use of Mathematics and its Application) (1766–72).
- 71 Kant also uses this formulation at R 5639 (1780–81? 1778–89? 1785–88? 18:276–9).
- 72 To this paragraph, compare R 5961 (1780s? 1776–79? 18:400–1) and R 5962 (1785–89, 18:401–5).
- 73 Zeno of Elea (c. 500–440 B.C.), reportedly a younger contemporary of Parmenides of Elea (Plato, *Parmenides* 127a–b). Zeno is best known for the four paradoxes of continuity, infinity, and motion discussed by Aristotle (*Physics* 9, 239b5–240a9). For Plato's remark, referred to here by Kant, see *Parmenides* 127d–128c (cf. *Phaedrus* 261d).
- 74 See R 5902 (1785–89, 18:379) and R 5903 (1780s? 1776–79? 18:379–80).
- 75 The distinction between infinite and indefinite is drawn by Baumgarten (*Metaphysica* § 248). Cf. Descartes, *Principles of Philosophy* 1.26–7 (*Oeuvres de Descartes* 8:14–15). For both Baumgarten and Descartes, the point is to reserve the property of true infinity for God alone.
- 76 In addition to A225/B273–4 above, see R 4618 (1772, 17:610).
- 77 See Baumgarten, *Metaphysica* § 159.
- 78 The distinction between the mathematical and dynamical antinomies and their solutions is discussed in a number of reflections: see R 5368–9 (1776–78, 18:163), R 5608 (1778–81, 18:249–51), R 5817 (1783–84, 18:362), R 5962 (1785–89, 18:401–5), R 5964 (1783–84, 18:405–6), R 5967–8 (1783–84, 18:407–8), R 6337 (1794–95, 18:657–8) and R 6421 (1790–95, 18:711).
- 79 Compare Baumgarten on the brute soul (*Metaphysica* §§ 792–3) and the free power of choice (*Metaphysica* §§ 712–19).
- 80 See note 64 above.
- 81 See R 5413 (1776–80s, 18:176).
- 82 See R 4548 (1772–75, 17:589), R 5413 (1776–80s, 18:176), R 5441 (1776–78, 18:182–3), R 5608 (1779–81, 18:249–51), R 5612–14, 5616 (1778–79, 18:252–6) and R 5618–19 (1778–79, 18:257–8).
- 83 This claim, which will be a major claim of Kant's *Groundwork of the Metaphysics of Morals* (1785) and *Critique of Practical Reason* (1788), is suggested as early as R 4336 (1770–71? 1769? 17:509–10). See also R 5441 (1776–78, 18:182–3) and R 5608 (1779–81, 18:249–51).
- 84 To this paragraph, compare R 5368–9 (1776–78, 18:163), R 5962 (1785–89, 401–5) and R 5968 (1783–84, 18:407–8).
- 85 In his 1763 work *The Only Possible Ground of Proof for a Demonstration of the Existence of God* (2:63–163, translation in Walford [ed.], *Theoretical Philosophy 1755–1770*, pp. 107–201), Kant had already worked out much of the criticism of the three arguments for the existence of God presented in section III of this chapter. Section II, however, criticizes a theistic argument akin to one Kant had proposed in 1763. In spite of this early origin of much of the material expounded in this chapter, however, Kant had apparently intended to discuss rational arguments for the existence of God only within the framework of the antinomies as late as the drafts of the "Dialectic" from 1775 (R 4756–60, 17:699–713), which would have meant