Résumés of the works

NEW ELUCIDATION

Kant's *New Elucidation* (1755) consists of three sections. Section 1, which contains Propositions I–III, rejects the claim that the ultimate principle of all truth is the Law of Contradiction, arguing that affirmative and negative truths require separate principles (What is, is and What is not, is not), which together constitute the Principle of Identity, which takes priority over the Principle of Contradiction. Section 2, which contains Propositions IV–XI, defines the principle of the determining ground (the Principle of Sufficient Reason). Kant distinguishes antecedently and consequentially determining grounds (the former including the ground why, the ground of being, and the ground of becoming; the latter being the ground of knowing). In Proposition V, Kant maintains that nothing is true without a determining ground. In Proposition VI, he attacks the idea that a being can contain the ground of its own being within itself, criticising the Cartesian version of the ontological proof of God's existence (though not on the grounds that existence is not a predicate), and he offers in Proposition VII a proof of God's existence from the possibility both of God Himself and of all other things. All beings which exist contingently (that is to say, all beings apart from God) must have an antecedently determining ground of existence (Proposition VIII). Proposition IX discusses Crusius's objection that the thesis just maintained involves fatalism; Kant's reply consists in a compatibilist defence of freedom. Propositions X and XI, respectively, state the genuine and the spurious corollaries of the principle stated in Proposition VIII, and include an attack on the Leibnizian principle of the Identity of Indiscernibles. Section 3, which contains Propositions XII and XIII, presents a statement of the Principle of Succession (substances are capable of change only in so far as they are dynamically and reciprocally related to one another, from which a proof of the existence of the external world is derived), and of the Principle of Co-existence (such a dynamic and reciprocal relation does not arise from the mere existence of substances alone but is possible only through the common principle of their being, the Divine Intellect, thinking them in a systematic and dynamic schema; from this a proof of the existence of God is derived).
PHYSICAL MONADOLOGY

Kant’s *Physical Monadology* (1756) consists of two sections. Section 1, containing Propositions I–VIII, argues the compatibility of two seemingly inconsistent theses: the infinite divisibility of space and the simplicity (or indivisibility) of physical monads (atoms) in space. Kant maintains that monads are not intrinsically spatial but that they occupy space by virtue of an activity (that of attracting and repelling). Both the spatial magnitude and the mass of monads are functions of the forces of repulsion and attraction, which are intrinsic to monads. Space itself is not a substance but an appearance of the external relation of substances. Proposition VIII contains a dynamic account of impenetrability. Section 2, containing Propositions IX–XIII, is less philosophical in character. Proposition IX, touching on the disputed notion of action at a distance through empty space, attempts to clarify the issue by offering a definition of ‘touching’; Proposition X maintains that the limits of the extension of a body are a function of both the force of attraction and that of repulsion. Propositions XI and XII touch on the issue of the possibility of the vacuum, and Kant argues that the differing specific density of the simple elements can constitute sometimes less and sometimes more mass. Proposition XIII maintains, on the basis of the dynamic atomic theory, that the elements are ‘elastic’.

OPTIMISM

In *Optimism* (1759), Kant defends Leibniz’s thesis that God, in creating this world, chose the best or most perfect (or the most real) of all possible worlds. Kant replies to two objections: The first objection maintains that the concept of the most perfect (or most real) world is as incoherent as that of the greatest number; Kant replies that the notion of a perfect world involves a limit, for without such a limit the distinction between the essentially finite world and the essentially infinite God (the sum total of all possible perfections or realities) would be destroyed. The second objection asserts that there could be a plurality of equally perfect worlds, no one of which could be described as the most perfect world; Kant replies that distinct and thus different worlds can only differ in respect of degrees of perfection or reality; if they did not, they would be the same world. Kant underpins these two theses by arguing that the very notion of divine choice involves the notion of choosing the best or the most perfect. The concept of a world created by an omniscient, omnipotent, and benevolent God necessarily involves the concept of its being the most real and most perfect and thus the best of all possible worlds.
FALSE SUBLTETY

Kant's \textit{False Subtlety} (1762) consists of six sections: Section 1 defines the concepts of judgement and syllogism; Section 2 specifies the rules governing affirmative and negative syllogisms; Section 3 distinguishes pure and mixed syllogisms; Section 4 argues the thesis that only syllogisms in the first figure are pure syllogisms; Section 5 maintains that, whereas syllogisms in the remaining three figures may be valid, they are superfluous and contrary to the ideal of logic, simplicity; Section 6 (philosophically the most substantial) denies (1) that concepts are logically prior to judgements (on the contrary, judgements actualise distinct concepts while syllogisms actualise complete concepts); (2) that understanding and reason are distinct faculties (on the contrary, they are both derived from the faculty of judgement); (3) that animals are capable of distinct concepts (on the contrary, lacking the higher faculties of cognition, they can at best physically differentiate; they cannot logically distinguish). Kant concludes by asserting that there are two ultimate principles of human cognition: the law of identity and the law of contradiction (the central thesis of the \textit{New Elucidation} [1755]).

THE ONLY POSSIBLE ARGUMENT

\textit{The Only Possible Argument} (1763) consists of a Preface (in which the distinction between a formal demonstration and an argument is drawn) and three unequally long sections. Section 1 contains a statement of the \textit{a priori} argument for the existence of a necessary being, the sum total of all positive realities, from the internal possibility of all things. This Being is unique, simple, immutable, eternal, endowed with understanding and will, and divine. Kant's argument rests on the denial that existence is a real predicate and on the assertion that possibility presupposes existence. Section 2 presents an \textit{a posteriori} argument for the existence of a single principle of all possibility from the unity of space, the simplicity and necessity of the laws of nature, and the perfect harmoniousness of nature as a whole. Kant criticises traditional versions of the physico-theological argument (for attempting to explain too many phenomena in terms of their direct dependency on the choice of God) and offers a revised version of that argument (which eliminates the need for direct divine intervention). This long and discursive section contains a wealth of illustrative material from the fields of geology, meteorology, and astronomy (it also contains a lengthy résumé of the thesis of the \textit{Universal Natural History} [1755]). The extremely brief Section 3, having distinguished four types of proofs of the existence of God, rejects the Cartesian ontological proof from the perfection of God and the Leibnizian argument from the contin-
gency of the world as not proofs at all; the revised physico-theological argument, while acknowledged as powerfully persuasive, is rejected for its lack of rigour. Only the a priori argument from the internal possibility of things is allowed to have apodeictic force.

NEGATIVE MAGNITUDES

Kant’s Negative Magnitudes (1763) consists of a Preface (on the use of mathematics in philosophy) and three sections. Section 1 contrasts logical opposition (contradiction) and real opposition (conflict of forces), and then introduces the concept of negative magnitude, illustrating its use by largely mathematical examples. An important distinction between nothing at all (nihil negativum), which results from logical opposition, deprivation (nihil privatum), which results from the conflict of forces, and lack (absentia), which results from the absence of forces, is made at the end of this section. Section 2 adduces simple examples of deprivations, resulting from the conflict of forces, and contains a discussion of phenomena such as rest, coldness, vice, and omissions of actions. Section 3 applies the concept of negative magnitude to certain problems of psychology (the coming-to-be and the passing-away of thoughts), of physics (the calculation of the sum of positive realities in the world, which is alleged to be constant), and of forces, negative and positive (which is alleged to yield zero). The concluding ‘General Remark’ emphasises the contrast between the logical grounds of knowing and the real grounds of existence, particularly with reference to the difference between the deductive relation of logic and the causal relation of natural science. The mysteriousness of causality is highlighted.

INQUIRY

Kant’s Inquiry (1764) consists of four reflections, of which the first two contrast the method of mathematics with that, respectively, of philosophy in general (First Reflection) and of metaphysics in particular (Second Reflection). The certainty and reliability of mathematical method is the product of the following factors: (1) Its object (magnitude) is unique. (2) It presupposes only a few unanalysable concepts or indeemonstrable propositions. (3) Its specific objects are not given but created definitions, which thus constitute its foundation; they are synthetic and real (not nominal); they are also, and are known to be, distinct and complete. (4) The signs it employs display the universal in concreto. None of this is true of philosophy (or, a fortiori, of metaphysics): Its objects are numerous and diverse; they are obscurely given and not created by definition; its foundation must therefore be what is given and what can be immediately established with certainty about the given; definitions may not, therefore, constitute its
foundation, but only and at best its ultimate objective. Such definitions will be products of analysis and hence neither synthetic nor real (only nominal); their distinctness and completeness will be difficult to establish; the signs they employ (words) can only display the universal in abstracto; thus they are liable to generate obscurity, ambiguity, and error. The Third Reflection concludes from these considerations that metaphysical certainty, though the same in kind as geometrical certainty, is vastly more difficult to attain and establish. The Fourth Reflection asserts that natural theology, by virtue of the uniqueness of its object (God), is capable of the greatest certainty; such certainty, though in principle possible for ethics, is, at its present stage of development, beyond its reach.

ANNOUNCEMENT

Kant’s Announcement (1765) is prefaced by some general remarks on a central and unavoidable problem of all education: the inevitable disparity between teacher and student. Education must always be adapted to the learner’s level of maturity. Its aim must, therefore, be to develop first the understanding and the capacity to think independently and then the capacity to reason; only then should education turn to scholarship and the acquisition of learning. As for the teaching of philosophy, its method must be that of enquiry, and its objective the imparting not of philosophical knowledge (which does not exist) but of the capacity to philosophise. The rest of this short essay contains an account of the content of Kant’s proposed courses on metaphysics, logic, ethics, and geography, by which we are given an insight into his understanding of the nature of these branches of enquiry.

DREAMS

Kant’s Dreams (1766) consists of two parts, one dogmatic and the other historical. Part I contains four chapters, of which the first two are analytic and the second two diagnostic. Chapter 1 contains an analysis of the concept of spirit (it is asserted to be a simple, immaterial, and rational substance, occupying space by virtue of its activity but not filling space, for it offers no resistance to material bodies). The chapter concludes with a discussion of the sense in which the human soul, if it is a spirit as thus defined, has a place in the material world. Chapter 2 contains an analysis of the concept of a spirit world consisting of immaterial substances contingently connected with (and thus animating) material substances. The chapter concludes with a discussion of the sense in which spirits might communicate with human beings and with an explanation of why such a phenomenon would be rare. Chapter 3 offers a diagnosis of the visions which might arise from such spirit communications in terms of the derangement of the mecha-
nism of transposition operative in ordinary perception, dreaming, and daydreaming. Chapter 4 offers a diagnosis of belief in spirits in terms of the mind's natural bias in favour of a future existence. The chapter concludes with a warning: Spirits are not possible objects of knowledge.

Part II contains three chapters, of which the first two are historical and the third philosophical. Chapter 1 contains three stories illustrating Swedenborg's alleged paranormal powers. Chapter 2 contains an account of Swedenborg's visions as they are described in his Arcana coelestia, which Kant dismisses as a farrago of nonsense. The chapter ends on a serious philosophical note: The attempt to answer the question about the nature, possibility, and reality of spirits has failed; it has, however, displayed the limits of human knowledge. Chapter 3 develops this idea: There are two such limits: (1) that which is fundamental within the empirical world (for example, the fundamental forces of gravitation and causality): such may be known but cannot be understood; (2) that which transcends the empirical world (for example, pure spirits): Such can neither be known nor understood. Such metaphysical knowledge is not only in principle impossible, it is unnecessary; knowledge of spirit beings is, contrary to popular belief, not even necessary to the moral life.

DIRECTIONS IN SPACE

Kant's Directions in Space (1768) contains a short but devastating critique of the Leibnizian view of space as nothing but a system of relations, and of his projected analysis situs. The relational view of space implies and the analysis situs presupposes that the complete description of the spatiality of a figure would involve the specification of two factors only: magnitude and form (Leibniz defines congruency in terms of equality of size and similarity in form); Kant argues that a third factor, directionality, would be necessary. Kant's purpose in this essay is to establish the real and independent existence of absolute physical space. Absolute space cannot itself be immediately perceived (it is not a possible object of perception, although it is the ground of the possibility of outer sensation); its existence can only be medially known through our apprehension of direction (above-below, in front-behind, right-left). Directionality is rooted in our physiological structure and is the ground of the three-dimensionality of space. According to Kant, it involves and is ultimately constituted by relatedness to absolute space. Directionality is the fundamental mode of our spatial experience and is the ground of the possibility of familiar activities such as reading a text, interpreting a map, and distinguishing species of plants and animals. More importantly (and devastatingly for Leibniz), directionality (or 'relatedness to absolute space') can alone explain that 'inner difference' which prevents two bodies which are equal in size and similar in form from being
congruent. The existence of incongruent counterparts is taken by Kant to prove the existence of absolute physical space.

INAUGURAL DISSERTATION

The Inaugural Dissertation (1770) consists of five sections. Section 1 (§§1–2) defines the concept of a world (‘a whole which is not a part’) and other related notions (analysis and synthesis). The concept of a world involves three factors: matter (substances), form (dynamic interaction between substances), and entirety (absolute completion). Section 2 (§§3–12) distinguishes the faculties of sensibility and understanding and their respective objects: the sensible (phenomena) and the intelligible (noumena). Sensibility involves intuitions, which are immediate and singular; understanding involves concepts, which are discursive and general; neither can be reduced to the other, their difference being one of origin, not of logical form. Section 3 (§§13–15) specifies the two principles of the form of the sensible world, time and space. Kant asserts of each that: (1) it is not derived from but presupposed by experience; (2) it is a singular representation; (3) it is a pure sensitive intuition; (4) it is not ‘objective and real’ but ‘subjective and ideal’; (5) it is, nonetheless, ‘in the highest degree true’; and (6) its parts presuppose the whole. Section 4 (§§16–22) specifies the principle of the form of the intelligible world, reciprocity between substances. Such dynamic interaction between substances is explicable neither in terms of their mere subsistence nor in terms of their being in space, but only in terms of their dependence on the single common principle of their being. Section 5 (§§23–30) discusses an aspect of the method of metaphysics, its illicit employment of certain subreptive axioms which result from the assumption that the subjective principles of the sensitive cognition of phenomena are also the objective principles of the intellectual cognition of noumena. Three classes of such subreptive axioms are distinguished. Kant also discusses certain related principles which the understanding cannot avoid employing if it is to judge at all, but which cannot be objectively validated. Such principles of harmony include the principle of natural causality and the principle of parsimony.
A new elucidation of the first principles of metaphysical cognition (1755)

Principiorum primorum cognitionis metaphysicae
nova dilucidatio (MDCCCLV)
PRINCIPORUM PRIMORUM COGNITIONIS METAPHYSICAE

NOVA DILUCIDATIO,

QUAM

CONSENSU AMPLISSIMAE FACULTATIS PHILOSOPHICAE

DISSERTATIONE PUBLICA

IN AUDITORIO PHIL. DIE 27. SEPTEMBR. HORIS VIII—XII

HABENDA

PRO RECESSIONE IN EANDEM

DEFENDET

M. IMMANUEL KANT, REGIOM.

RESPONDENTE

CHRISTOPHORO ABRAHAMO BORCHARD, HEILIGENB. BOR.
S. S. THEOL. CULTORE,

OPPONENTIBUS

IOHANNE GODOFREDO MÖLLER, REGIOM.
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FRIDERICUS HENRICUS SAMUELE LYSIO, REGIOM.
I. U. C.

ET

IOHANNE REINHOLDI GRUBE, REGIOM.
I. U. C.

ANNO MDCCCLV.
A new elucidation
of the first principles
of metaphysical cognition

which
with the agreement of the most
distinguished faculty of philosophy,
is to be defended in public disputation
for admission to that faculty
by
M. Immanuel Kant
of Königsberg,
in the philosophical auditorium
on the 27th day of September
between the hours of 8 and 12.
Christoph Abraham Borchard
of Heiligenbeil in Prussia
candidate in sacred theology
will reply to the opponents
Johann Gottfried Möller
of Königsberg,
student of sacred theology;
Friedrich Heinrich Samuel Lysius
of Königsberg,
candidate in ecclesiastical and civil law;
and
Johann Reinhold Grube
of Königsberg,
candidate in ecclesiastical and civil law
in the year 1755
I am about to throw some light, I hope, on the first principles of our cognition, and to expound in as few pages as possible the product of my reflection on the subject. I have thus carefully avoided extensive digressions and only laid bare the muscles and joints of my argument, having put aside all charm and grace of language, like a discarded garment. If I shall anywhere in this undertaking have considered it my duty to dissent from the opinions of celebrated men, and even on occasion to mention them by name, I am so well persuaded of their fair-mindedness that I am confident that my dissent will in no wise detract from the honour which their merits deserve, or that they will in any way resent my criticism. When opinions diverge, each is fully entitled to his own view. Nor is it forbidden to criticise the arguments of others in a modest and balanced fashion, provided that the criticism is free from bitterness and contentiousness. Nor have I ever noticed that impartial judges have deemed such criticism to be contrary to the requirements of either politeness or respect.

Accordingly, I shall, in the first place, attempt to weigh on the scales of a more carefully conducted enquiry the things which are asserted, usually with more confidence than truth, concerning the supreme and undoubted primacy of the principle of contradiction over all truths. I shall then attempt briefly to explain what ought more correctly to be maintained on this head. I shall therupon adduce, in what concerns the law of sufficient reason, whatever may serve to improve both an understanding and the proof of that principle. At the same time, I shall cite the difficulties which seem to beset it, replying to them with all the force of argument at the disposal of my modest mind. Finally, I shall take one further substantial step and establish two new principles of metaphysical cognition which are, it seems at least to me, of an importance which is not to be despised. They are not, it is true, fundamental principles, nor are they the simplest principles. But they are, for that reason, even better adapted for use, and they certainly have as wide an application as any other principles. In an endeavour such as this, one may, in advancing along an untrodden path, very easily fall into error. This being the case, I am convinced that the benevolent and impartial reader will view everything in the most favourable light.

* ratio (alt: plan).
Section 1. Concerning the principle of contradiction

Warning: Since I am particularly concerned to be brief in this treatise, I think it better here not to copy out afresh the definitions and axioms which are firmly established in ordinary knowledge and which are consonant with right reason. Nor do I think it a good idea to follow the example, by imitating their practice, of those who, slavishly bound by I know not what method, only deem themselves to have proceeded in a rational fashion if they have scrutinised from beginning to end whatever they find on the bookshelves of philosophers. I have thought it good to warn the reader of this in advance, lest he take for a fault that which I have done deliberately.

Proposition I. There is no UNIQUE, absolutely first, universal principle of all truths.

A first and truly unique principle must necessarily be a simple proposition; if it covertly embraced a number of propositions it would merely present the deceptive semblance of a unique principle. If, therefore, a proposition is truly simple, it must be either affirmative or negative. But I maintain that if it is one or the other, it cannot be universal and subsume under itself all truths whatever. For, if you say that it is affirmative, it cannot be the absolutely first principle of all negative truths; and if you say that it is negative it cannot take command of the positive truths.

Let us suppose, namely, that the proposition is negative. Who is there who does not see that, since the logical derivation of all truths from their principles is either direct or indirect, it is not possible, firstly, to deduce anything from a negative principle by the direct method of inference except negative conclusions? If you then go on to insist that affirmative propositions flow from that negative principle indirectly, then you will acknowledge that this can only happen by means of the following proposition: everything of which the opposite is false, is true. This proposition, since it is itself affirmative, cannot derive from the negative principle by the direct method of argument; still less can it follow indirectly, for it would then be

\[ \text{percursa cognitione}, \quad \text{rectae rationi}, \quad \text{catholic}, \quad \text{speciem}. \]
supported by itself. Hence, it will not follow by any method of argument whatever from a negatively formulated principle. Since, therefore, it is not possible for affirmative propositions to issue from a unique and single negative principle, this principle cannot be called universal. Likewise, if you set up as your cardinal principle an affirmative proposition, negative propositions will certainly not follow directly from it; but if they are to follow indirectly the following proposition will be necessary: *everything of which the opposite is true, is itself false*. In other words, everything of which the opposite is affirmed, is itself negated. Since this proposition is negative there is, once more, no way in which it can be deduced from an affirmative principle either directly, which is self-evident, or indirectly, unless it presupposes itself. In whatever manner, therefore, you resolve the matter with yourself, you will not reject the proposition which I asserted at the beginning: that there cannot be a unique, ultimate, universal principle of all truths whatever.

*Proposition II. There are two absolutely first principles of all truths. One of them is the principle of affirmative truths, namely the proposition: whatever is, is; the other is the principle of negative truths, namely the proposition: whatever is not, is not. These two principles taken together are commonly called the principle of identity.*

Once more I appeal to the two kinds of method of demonstrating truths, namely the direct and the indirect. The first method of inference arrives at the truth by appealing to the agreement/ of the concepts of the subject and the predicate. It always has as its foundation this rule: whenever a subject, whether it be viewed in itself or in its connection with other things, either posits those things which embrace the concept of the predicate, or excludes those things which are excluded by the concept of the predicate, it must be concluded that the predicate belongs to the subject. To express the same thing a little more clearly: whenever an identity between the concepts of the subject and the predicate is discovered, the proposition is true. Expressed in the most general terms, as is befitting a first principle, the principle runs: *whatever is, is, and whatever is not, is not.* Accordingly, the principle of identity certainly governs every direct method of argumentation; it is, therefore, the first principle.

If you enquire about the indirect method of inference, you will in the end discover that it is founded on the same twin principle. For appeal is always made to these two propositions: (1) everything of which the oppo-

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1 conveniencia. 2 vel in se vel in nexu.

* q.e. primum / Bock (hereafter B): *was das erste war* / Carabellese (Assunto) (hereafter C): *che è il primo principio* / England (hereafter E): that is to say, it is a first principle / Ferrari (hereafter F): *qui est le principe premier* / Reusch (hereafter R): and this makes it a first principle.
site is false is true; that is to say: everything of which the opposite is negated must be asserted; (2) everything of which the opposite is true is false. From the first of these two propositions affirmative propositions follow, and from the second there follow negative propositions. If you express the first proposition in the simplest terms you will have: \textit{whatever is not not, is} (for the opposite is expressed by the little word \textit{not}, and its cancellation \textit{j is likewise expressed by the little word \textit{not}}). You will formulate the second proposition in the following manner: \textit{whatever is not, is not} (for here again the expression of the opposite is effected by the little word \textit{not}, and the expression of its falsity or cancellation is similarly effected by the same little word). Now if, as the law of signs\textsuperscript{b} demands, you examine the sense of the signs contained in the first proposition, then, since the one little word \textit{not} indicates that the other is to be cancelled,\textsuperscript{t} when both have been eliminated you will end up with the proposition: \textit{whatever is, is}. Since, however, the second proposition runs: \textit{whatever is not, is not}, it is clear that even in indirect proof the twin principle of identity is supreme. It is, as a result, the ultimate foundation of all cognition whatever.

\textbf{Scholium.} Here we have a sample – a trifling one, it is true, but not one which is wholly to be despised – of the art of combining signs,\textsuperscript{m} for the simplest terms, which we have employed in elucidating these principles, scarcely differ from signs at all. I shall take this opportunity to express my opinion of this art. After Leibniz had advertised the merits of his discovery,\textsuperscript{n} men of learning all complained that it had been buried along with the great man himself. I confess that the great man’s pronouncements on the matter put me in mind of the will of the father in one of Aesop’s fables.\textsuperscript{5} On the very point of dying, he revealed to his children that he had hidden a treasure somewhere in his field, but before he could indicate the place he suddenly expired. This induced the sons assiduously to turn up the field and work it over by digging it up, until, their hopes disappointed, they nonetheless found themselves certainly enriched by the fertility of their field. I suspect, at any rate, that this will be the only fruit, to be sure, which an examination of that celebrated art will yield, should there be anyone prepared to devote themselves to the execution of this task. But, if I may be permitted to say plainly what the situation is, I fear that the suspicion, somewhere expressed by the penetrating Boerhaave in his \textit{Chemistry}\textsuperscript{6} concerning the most celebrated practitioners of the art of alchemy, may have been the fate of that incomparable man. Boerhaave, namely, suspects that the alchemists, having solved many remarkable mysteries, eventually came to suppose that there would no longer be anything which was not in their power, provided only that they put their hands to it. By a certain precipitate anticipation, they talked

\textsuperscript{a per particulam. \textit{b remotio. \textit{k lege caracteristica. \textit{l tollendam.}}}}

\textsuperscript{m in arte caracteristica combinatoria. \textit{n inventam venditabat.}}
of those things as achieved which they inferred might, indeed, must happen provided only that they addressed their minds to the realisation of these things. For my own part, I do not deny that, once one has arrived at absolutely first principles, a certain use of the art of signs may be legitimate, for one has the opportunity there of employing the concepts and consequently the simplest terms, as well, as signs. However, when compound cognition is to be expressed by means of signs, all the mind’s perspicacity finds itself suddenly stranded, so to speak, on a reef, and impeded by difficulties from which it is unable to extricate itself. I even find that one philosopher of great renown, the celebrated Daries, has attempted to elucidate the principle of contradiction by means of signs, representing the affirmative concept by the sign ‘+A’ and the negative concept by the sign ‘−A’, which yields the equation ‘+A − A = 0’. In other words, affirming and negating the same thing is impossible or nothing. With all due respect to the great man, I would nonetheless say that I detect an indubitable begging of the question in this attempt. For if you invest the sign of the negative concept with the power of cancelling the affirmative concept, when the former is combined with the latter, you are obviously presupposing the principle of contradiction, which maintains that concepts which are the opposite of each other reciprocally cancel out each other. However, our explanation of the proposition everything of which the opposite is false is true, is free from this defect. For since, when expressed in the simplest terms, it runs as follows: everything which is not not, is, it follows that by removing the little word ‘not’ we do nothing other than follow up their simple meaning. The result is inevitably the principle of identity: everything which is, is.

Proposition III. To establish more securely the priority of the principle of identity over the principle of contradiction as the supreme principle in the hierarchy of truths.

The proposition which arrogates to itself the title of the absolutely supreme and most general principle of all truths must be formulated, firstly, in the simplest terms, and, secondly, in the most general terms. It seems to me beyond doubt that the twin principle of identity satisfies these two conditions. For of all affirmative terms the simplest is the little expression ‘is’, and of all negative terms the simplest is the little expression ‘is not’. And then there is nothing which can be conceived which is more universal than the simplest concepts. The reason for this is that the concepts which are more complex borrow their light from those which are simple; and since the complex concepts are more determinate than the simple concepts, it follows that the former cannot be as general as the latter.

The principle of contradiction, which is expressed by the proposition: it

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* in veritatum subordinatione.  
° magis compositae.
is impossible that the same thing should simultaneously be and not be, is in fact nothing but the definition of the impossible. For everything which contradicts itself, that is to say, everything which is thought of as simultaneously being and not being, is called impossible. But in what way is it possible to establish that all truths ought to be referred to this definition as to a touchstone? For it is neither necessary that every truth be guaranteed by the impossibility of its opposite, nor, if the truth be told, is it in itself sufficient, either. For the transition from the impossibility of its opposite to the assertion of its truth can only be effected by means of the maxim: *Everything, of which the opposite is false, is true.* And thus, as we have already shown above, this proposition shares power with the principle of contradiction.

Finally, to confer in the realms of truths the highest rank of all on a negative proposition in particular, and to hail it as the head and foundation of all things, will surely strike everyone as rather harsh and, indeed, as considerably worse even than a paradox, for it is not clear why a negative truth should be invested with this authority in preference to an affirmative truth.

Scholium. This investigation may, perhaps, appear to some as subtle and elaborate, and even as superfluous and lacking in all utility. And if you are thinking of its fruitfulness in generating corollaries, you have my agreement. For the mind, even if it is not instructed as to the existence of such a principle, cannot but employ it everywhere, doing so spontaneously and in virtue of a certain necessity of its nature. But is it not for that reason the case that tracing the chain of truths to its final link is a subject which deserves to be investigated? And certainly an investigation such as this, which enquires more deeply into the law which governs the reasoning of our mind, is not to be despised. For to mention just one point: since all our reasoning amounts to uncovering the identity between the predicate and the subject, either in itself or in relation to other things, as is apparent from the ultimate rule of truths, it can be seen that God has no need of reasoning; for, since all things are exposed in the clearest possible way to his gaze, it is the same act of representation which presents to his understanding the things which are in agreement and those which are not. Nor does God need the analysis which is made necessary for us by the night which darkens our intelligence.

* corollariorum fecunditatem.  
  * ratiocinatone.
Section 2. Concerning the principle of the determining ground, commonly called the principle of the sufficient ground

DEFINITION

Proposition IV. To determine is to posit a predicate while excluding its opposite.

That which determines a subject in respect of any of its predicates, is called the ground.1 Grounds may be differentiated into those which are antecedently2 determining and those which are consequentially3 determining. An antecedently determining ground is one, the concept of which precedes that which is determined. That is to say, an antecedently determining ground is one, in the absence of which that which is determined would not be intelligible.* A consequentially determining ground is one which would not be posited unless the concept which is determined by it had not already been posited from some other source. You can also call the former the reason why, or the ground of being or becoming,5 while the latter can be called the ground that, or the ground of knowing.6

Proof of the reality of our definition. The concept of a ground, as it is commonly understood, establishes a connection and a conjunction7 between the subject and some predicate or other. A ground thus always

* It is legitimate to include in this the identical ground, where the concept of the subject determines the predicate by means of its own complete identity with the predicate. Take for example: a triangle has three sides. Here, the concept of that which is determined neither follows nor precedes the determining concept.

1 ponere.
5 rationem cur s. rationem essendi vel fiendi. 6 rationem quod s. cognoscendi. 7 Adstructio.
8 necum . . . et colligationem.
requires a subject; and it also requires a predicate, which it can unite with
the subject. If you ask for the ground of a circle I shall not at all under-
stand what you are asking for unless you add a predicate, for example, that
it is, of all the figures which have a perimeter of the same length, the one
which embraces the greatest area. For example, suppose we seek for the
ground of all evils in the world. We thus have the proposition: the world
contains a number of evils. What is being sought is not the ground that, in
other words, not the ground of knowing, for experience takes its place.
What has to be specified is the ground why, that is to say, the ground of
becoming. In other words, the ground which has to be specified is the
ground, the positing of which renders intelligible the fact that the world is
not antecedently indeterminate in respect of this predicate. By contrast,
once the ground is posited, the predicate of evils is posited to the exclu-
sion of its opposite. A ground, therefore, converts things which are inde-
terminate into things which are determinate. And since all truth is gener-
ated by the determination of a predicate in a subject, it follows that the
determining ground is not only the criterion of truth; it is also its source.
And if one abandoned it, one would indeed discover a great deal which
was possible, but nothing at all which was true. Thus, it is indeterminate
for us whether the planet Mercury revolves on its axis, or not, for we lack a
ground which would posit one of the two predicates to the exclusion of its
opposite. Each of the two predicates remains possible, neither being estab-
lished as true in respect of our knowledge.

In order to illustrate the difference between antecedently and consequen-
tially determining grounds, I shall take as an example the eclipses of the
satellites of Jupiter. I maintain that they furnish the ground of knowing that
light is propagated successively and with a specifiable velocity. But this
ground determines this truth only consequentially. For if Jupiter had no
satellites at all, or if no occultation were produced by their successive
revolutions, light would, nonetheless, still move in time in exactly the
same way, although this might not, perhaps, be known to us. Or, to rely
more heavily on the given definition: the phenomena of the satellites of
Jupiter, which demonstrate the successive motion of light, presupposes
precisely that very property of light, without which these phenomena
could not occur in the way in which they do occur. It follows, therefore,
that they determine this truth only consequentially. However, the ground
of becoming, that is to say, the ground why the motion of light involves a
specifiable expenditure of time is to be found (if you adopt the view of
Descartes) in the elasticity of the elastic globules of the atmosphere.
According to the laws governing elasticity, these elastic globules of the
atmosphere yield a little to impact: when the moments of time taken up by

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a isoperimetrarum. b prae dicatum malorum ponitur cum exclusione oppositi.
c ex indeterminatis effict determinata. d assignabili. e ingenium.
each globule to absorb and transmit the impact are added together throughout the enormously long and connected series they eventually yield a perceptible lapse of time. This would be a ground which determines antecedently. In other words, it would be a ground such that, were it not posited, that which was determinate would not occur at all. For if the globules of the atmosphere were perfectly hard, no interval of time would be perceived between the emission and the arrival of the light, no matter how immense the distance traversed.

Since the definition offered by the celebrated Wolff\textsuperscript{12} suffers from a notable defect, it seemed to me to require correction here. For he defines a ground in terms of that by reference to which it is possible to understand why something should rather be than not be. And in this he certainly conflates the thing defined with its own definition.\textsuperscript{7} For although the little expression why may seem sufficiently adapted to common sense to be deemed capable of inclusion in a definition,\textsuperscript{8} it, nonetheless, in its turn, tacitly involves the concept of a ground. For if you correctly examine the term, you will find that it means the same as for which ground. Thus, once the substitution has been duly made, Wolff’s definition runs: a ground is that by reference to which it is possible to understand for which ground something should be rather than not be.

Likewise, I thought it better to replace the locution ‘sufficient ground’ by the expression ‘determining ground’. And, in making this substitution, I have the support of the celebrated Crusius.\textsuperscript{13} For, as he makes abundantly plain, the expression ‘sufficient’ is ambiguous, for it is not immediately clear how much is sufficient. Since, however, to determine is to posit in such a way that every opposite is excluded, the term ‘determine’ designates that which is certainly sufficient to conceive the thing in such and such a way, and in no other.

\textit{Proposition V. Nothing is true without a determining ground.}

Every true proposition indicates that the subject is determinate in respect of a predicate. That is to say, the predicate is posited to the exclusion of its opposite. Thus, in every true proposition it is necessary that the opposite of the predicate in question should be excluded. However, a predicate is excluded if it is incompatible with another concept which has already been posited, and it is excluded in virtue of the principle of contradiction. Therefore, no exclusion occurs if no concept is present which conflicts with the opposite which is to be excluded. Accordingly, there is something in every truth which determines the truth of the proposition by excluding the opposite predicate. Since this is what is called the determining

\textsuperscript{1} definitum immiscuit definitionis.
\textsuperscript{7} satis videatur communi intelligentiae accommodata, ut in definitione sumi posse censenda.
ground, it is established that nothing is true without a determining ground.

*The same argument differently expressed.* From the concept of a ground it is possible to understand which of the opposed predicates is to be ascribed to the subject and which is to be denied. Suppose that something were true without a determining ground: there would be nothing from which it would be apparent which of the two opposed predicates was to be ascribed to the subject, and which of the two was to be denied of it. Thus, neither would be excluded, and the subject would be indeterminate in respect of each of the predicates. Hence, there would be no room for truth. But, since it was assumed that the thing was true, a manifest contradiction is apparent.

**Scholium.** It has been established by the common opinion of all mortals that knowledge of the truth is always based upon an intuition of the ground. However, when we are only concerned with certainty, we very frequently rest satisfied with a consequentially determining ground. But if one takes the theorem adduced above along with the definition and considers them together, it can easily be seen that there is always an antecedently determining ground, or if you prefer, a genetic or at least an identical ground; for, of course, a consequentially determining ground does not bring the truth into being; it only explains it. But let us proceed to the grounds which determine *existence*.

*Proposition VI. To say that something has the ground of its existence within itself is absurd.*

For whatever contains within itself the ground of the existence of something is the cause of that thing. Suppose, therefore, that there is something which has within itself the ground of its own existence, then it will be the cause of itself. Since, however, the concept of a cause is by nature prior to the concept of that which is caused, the latter being later than the former, it would follow that the same thing would be simultaneously both earlier and later than itself, which is absurd.

**Corollary.** If anything, therefore, is said to exist absolutely necessarily, that thing does not exist because of some ground; it exists because the opposite cannot be thought at all. This impossibility of the opposite is the ground of the knowledge of existence, but an antecedently determining ground is completely absent. *It exists;* and in respect of the thing in question, to have said and to have conceived this of it is sufficient.

**Scholium.** I find, indeed, the view repeatedly expressed in the teach-

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1:394

\(^h\) *rationis semper intutu nis.*

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ings of modern philosophers that God has the ground of His existence posited in Himself. For my part, I find myself unable to support this view. To these good men it seems, namely, somehow rather hard to deny that God, the ultimate and most complete principle both of grounds and of causes, should contain within Himself the ground of Himself. Thus they maintain that, since one may not assert that there is a ground of God which is external to Him, it follows that He contains concealed within Himself the ground of Himself. But there could scarcely be anything more remote from sound reason than this. For when, in a chain of grounds, one has arrived at the beginning, it is self-evident that one comes to a stop and that the questioning is brought to an end by the completeness of the answer. Of course, I know that appeal is made to the concept itself of God; and the claim is made that the existence of God is determined by that concept. It can, however, easily be seen that this happens ideally, not really. Form for yourself the concept of some being or other in which there is a totality of reality. It must be conceded that, given this concept, existence also has to be attributed to this being. And, accordingly, the argument proceeds as follows: if all realities, without distinction of degree, are united together in a certain being, then that being exists. But if all those realities are only conceived as united together, then the existence of that being is also only an existence in ideas. The view we are discussing ought, therefore, rather to be formulated as follows: in framing the concept of a certain Being, which we call God, we have determined that concept in such a fashion that existence is included in it. If, then, the concept which we have conceived in advance is true, then it is also true that God exists. I have said these things, indeed, for the sake of those who support the Cartesian argument.

Proposition VII. There is a Being, the existence of which is prior to the very possibility both of itself and of all things. This Being is, therefore, said to exist absolutely necessarily. This Being is called God.

Possibility is only definable in terms of there not being a conflict between certain combined concepts; thus the concept of possibility is the product of a comparison. But in every comparison the things which are to be compared must be available for comparison, and where nothing at all is given there is no room for either comparison or, corresponding to it, for the concept of possibility. This being the case, it follows that nothing can be conceived as possible unless whatever is real in every possible concept exists and indeed exists absolutely necessarily. (For, if this be denied,
nothing at all would be possible; in other words, there would be nothing but the impossible.) Furthermore, it is necessary that this entire reality should be united together in a single being.

For suppose that these realities, which are, so to speak, the material of all possible concepts, were to be found distributed among a number of existent things; it would follow that each of these things would have its existence limited in a certain way. In other words, the existence of each of these things would be combined with certain deprivations. Absolute necessity is not compatible with deprivations as it is with realities. Deprivations, however, belong to the complete determination of a thing, and without this complete determination a thing could not exist. This being the case, it follows that the realities which are limited in this way will exist contingently. It is, accordingly, a requirement for their absolute necessity that they should exist without any limitation, in other words, that they should constitute an Infinite Being. Since the plurality of this being, should you wish to imagine such a thing, would be a repetition made a number of times and hence a contingency opposed to absolute necessity, it must be concluded that only one such Being exists absolutely necessarily. Thus, there is a God, and only one God, the absolutely necessary principle of all possibility.

Scholium. Such is the demonstration of the existence of God. It is, as far as possible, a proof based on essence. And, although properly speaking, there is no room for a genetic proof, nonetheless the proof is based upon a most fundamental consideration, namely, the possibility itself of things. It is plain from this, therefore, that if you deny the existence of God, you instantly abolish not only the entire existence of things but even their inner possibility itself. For although essences (which consist in inner possibility) are ordinarily called absolutely necessary, nonetheless, it would be more correct to say that they belong to things absolutely necessarily. For the essence of a triangle, which consists in the joining together of three sides, is not itself necessary. For what person of sound understanding would wish to maintain that it is in itself necessary that three sides should always be conceived as joined together? I admit, however, that this is necessary for a triangle. That is to say: if you think of a triangle, then you necessarily think of three sides. And that is the same as saying: if something is, it is. But how it comes about that the concepts of sides, of space to be enclosed, and so forth, should be available for use by thought;

* omnimoda haec realitas / B: diese Realität durchgängig / C: questa realtà, che attua tutti i possibili modi dell’essere / E: this complete reality / F: cette réalité, qui existe de toutes les manières / R: this total reality.
* realis. 1 privationibus. " demonstrationem . . . essentiam. 
* quae consistunt in interna possibilitate. 
* competere / B: zukommen / C: competere / E: coincidere / F: apparienent / R: standing in . . . agreement.
how, in other words, it comes about that there is, in general, something which can be thought, from which there then arises, by means of combination, limitation and determination, any concept you please of a thinkable thing – how that should came about is something which cannot be conceived at all, unless it is the case that whatever is real in the concept exists in God, the source of all reality. We know, of course, that Descartes advanced an argument for the existence of God drawn from the inner concept itself of God. But the scholium of the preceding paragraph shows how he was deluded in this matter. Of all beings, God is the only one in which existence is prior to, or, if you prefer, identical with possibility. And as soon as you deny the existence of God, every concept of possibility vanishes.

Proposition VIII. Nothing which exists contingently can be without a ground which determines its existence antecedently.

Suppose that something which existed contingently were to lack an antecedently determining ground. There will be nothing which determines it to exist, except the very existence of the thing itself. But existence is, notwithstanding, determined. That is to say, existence is posited in such a way that whatever is opposed to its complete determination is excluded altogether. It follows from this, therefore, that there will be no other exclusion of the opposite than that which issues from the positing of existence. Since this exclusion, however, is identical (for nothing prevents a thing from not existing apart from the fact of not being non-existent), it follows that the opposite of existence is excluded by itself; in other words, the opposite of existence will be absolutely impossible. In other words, the thing exists absolutely necessarily. But that contradicts our hypothesis.

Corollary. It is, therefore, clear from these proofs that it is only the existence of contingent things which requires the support of a determining ground, and that the unique and absolutely necessary Being is exempt from this law. It is hence clear that the principle is not to be admitted in such a general sense that it embraces within its dominion the totality of everything which is possible.

Scholium. Such is the demonstration of the principle of the determining ground, which has now been finally fully illuminated by all the light of certainty, or so at least I am convinced for my part. It has been sufficiently noticed that the most penetrating philosophers of our age, among whom I mention the celebrated Crusius for special honour, have always complained that the demonstration of this principle, as we find it hawked around in all the books written on the subject, has lacked solidity. The

* Et huius nulla manet notio, simulatque ab existentia eius discerseris.

† (quippe nihil aliud vetat rem non existere, quam quod non existentia remota sit).
great man so despaired of a cure for this malady that he seriously main-
tained that this proposition was altogether incapable of demonstration, even if it were admitted to be in the highest degree true. However, I must explain why I did not find the discovery and execution of this demonstration so easy that I was able to complete the entire proof in a single argument, as people ordinarily try to do, but rather found it necessary to adopt a somewhat circuitous route in order, finally, to attain full certainty.

First of all, namely, I had carefully to distinguish between the ground of truth and that of existence, although it might have seemed that the universality of the principle of the determining ground, which holds in the realm of truths, might equally extend over existence as well. For if nothing is true without a determining ground; that is to say, if a predicate does not belong to a subject, unless there is a determining ground, it would also follow that there would be no predicate of existence, either, if there were no determining ground. It is, however, agreed that there is no need for an antecedently determining ground to establish a truth: the identity which exists between the predicate and the subject is sufficient for the purpose. But, in the case of existing things, it is necessary to search for the antecedently determining ground. If there be no such ground, then the being in question exists absolutely necessarily. If existence be contingent, then, as I have already irrefutably demonstrated, the antecedently determining ground cannot fail to precede existence. Hence, the truth, having been drawn from its very sources, emerges, in my opinion at least, all the purer.

The celebrated Crusius thinks, indeed, that certain existent things are determined by their actuality in such a way that it would be futile to demand anything else in addition. Titus acts of his own free will. I ask: why did he do this rather than not do it? He replies: because he willed it. But why did he will it? He maintains that asking this is foolish. If you ask: why did he not rather do something else? he will reply: because he is already doing this. He therefore thinks that the free will is actually determined by its existence, not antecedently by grounds which are prior to its existence. He maintains that all opposite determinations are excluded by the mere positing of actuality alone, and, hence, that there is no need for a determining ground. But I shall now employ another argument, if you will permit me to do so, to prove again that a contingent thing is never sufficiently determined, if you abandon the antecedently determining ground, and, hence, that a contingent thing cannot exist without such a determining ground. The act of free will exists, and this existence excludes the opposite of this determination. But since at one time it did not exist, and since its existence does not itself determine whether or not it existed at some earlier time, it follows that the existence of this volition leaves the question whether it already existed beforehand or not indeterminate. How-

\[\text{\textit{maxime vera. } \textit{actu determinatam.}}\]
ever, since in a thorough determination, the determination whether a being has begun to exist or not is also one question among all the others, it follows that a being will remain indeterminate and, indeed, incapable of being determined, until, in addition to that which belongs to its inner existence, concepts are deployed which are capable of being thought independently of its existence. But that which determines the earlier non-existence of the existing being precedes the concept of existence. It is, however, the same thing which determines that the existent being did not exist beforehand which also determined it to pass from non-existence to existence. (After all, the propositions: Why did that which now exists once not exist? and: Why does that which once did not exist now exist? are, in fact, identical.) That is to say, there is a ground which antecedently determines its existence. It follows from this with complete clarity that, without an antecedently determining ground, there can be no kind of determination of a being, which is conceived of as having come into being; and, hence, there can be no existence. If this demonstration should strike anyone as somewhat obscure on account of the analysis of the concepts which goes too deeply into the matter, he can rest content with what was said earlier.

Finally, I should like to offer a brief explanation for my declining to accept the demonstration frequently employed by the celebrated Wolff and his followers. The demonstration offered by this famous man, as it is to be found expounded more distinctly by the penetrating Baumgarten, amounts, when it is reduced to essentials, to this: if something does not have a ground, then nothing would be its ground; nothing would therefore be something, which is absurd. But the method of arguing ought rather to be formulated as follows: if a being is without a ground, the ground of that being is nothing, that is to say, a non-being. But this I readily concede, for if there is no ground, the concept corresponding to it will be that of a non-being. Hence, if the only ground which can be attributed to the being is one to which no concept corresponds at all, then that being will completely lack a ground; and that is tantamount to what we supposed to start with. Hence, the absurdity, which was supposed to follow, does not follow at all. Let me offer an example in support of my view. According to this method of inference I shall venture to prove that even the first human being was begotten by a father. For suppose that he was not begotten. Then it would be nothing which would have begotten him. He would, therefore, have been begotten by nothing. But since this is contradictory, it must be admitted that he was begotten by someone. It is not difficult to escape the sophistry of the argument. / If he has not been begotten, noth-

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1. in determinacione omnimoda.
2. haece quaque una omnium / B: auch eine von allen / C: ______ / E: this is the main question of all / F: parmi toutes les autres la question de savoir / R: the most important question of all.
3. non ens. c ambabus manibus. f captionem argumenti.
ing has begotten him. That is to say, the person who is supposed to have begotten him is nothing or a non-being, and that is as certain as certain can be. But if the proposition is converted in the wrong fashion, it yields a distorted sense in the worst way.

Proposition IX. An enumeration and resolution of the difficulties which seem to beset the principle of the determining ground, or, as it is commonly called, the principle of the sufficient ground.

Among those who attack this principle, the most distinguished and penetrating Crusius is to be regarded, and rightly so, as leading the assault.* He alone of all those involved is able to bear the brunt of the battle. I maintain that Crusius scarcely has an equal among all those who are, I shall not say philosophers, but rather advocates of philosophy in Germany. If my discussion of his doubts turns out well (and the defense of a good cause seems to guarantee a successful outcome), I shall regard myself as having overcome every difficulty. First of all, he criticises the formulation of this principle for its ambiguity and the vagueness of its meaning. For he rightly remarks that the ground of knowing, and likewise the moral ground, and other ideal grounds, are repeatedly mistaken for real and antecedently determining grounds, so that it is often only with difficulty that one can tell which of the two is meant. We do not need to parry this blow because it does not strike at our assertions. Anyone who examines our various claims will find that I carefully distinguish the ground of truth from the ground of actuality. All that is involved in the former case is the positing of a predicate. Such a positing is effected by means of the identity which exists between the concepts which are contained in the subject, whether it be viewed absolutely or in connection with other things, and the predicate; the predicate, which already attaches to the subject, is merely disclosed. In the latter case, those predicates which are posited as inhering in the subject are examined in respect of the question, not whether their existence is determined, but whence it is determined. If there is nothing present, apart from the absolute positing of the thing itself, which excludes the opposite, it must be deemed to exist in itself and with

* I do not wish to dispute the merit of the celebrated Daries.** His arguments, and those advanced by some others as well, are, I maintain, of great moment in increasing the difficulties which beset the principle of the determining ground. But since they seem to be closely related to the arguments adduced by the excellent Dr Crusius I think that I can limit my reply to the difficulties by concentrating chiefly on the points made by Crusius, without incurring the displeasure of those otherwise great men.

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absolute necessity. But if it is assumed to exist contingently, then there must be other things present which, by determining it thus and not otherwise, antecedently exclude the opposite of its existence. So much, then, for our demonstration in general.

Certainly, a greater danger threatens the defenders of the principle from the objection put forward by that most illustrious man:31 he accuses us, with an eloquence and indeed with a vigour of argument which is not to be despised, of restoring to their ancient rights the immutable necessity of all things and the fate of the Stoics,32 and, furthermore, of impairing all freedom and morality. His argument, although not entirely new,33 is, nonetheless, stated by him in greater detail and with greater force. I shall restate his argument as concisely as possible but without diminishing its vigour.

If it is the case that whatever happens can only happen if it has an antecedently determining ground, it follows that whatever does not happen could not happen either, for obviously no ground is present, and without a ground it could not happen at all. And this is something which has to be admitted in the case of all grounds of grounds4 taken in retrogressive order. It follows, therefore, that all things happen in virtue of a natural conjunction, and in such a connected and continuous fashion that, if someone were to wish the opposite of some event or even of a free action, his wish would involve the conception of something impossible, for the ground necessary to produce the opposite of what happened or was done is simply not present. And thus, by tracing one’s way along the inexorable chain of events which, as Chrysippos34 says, once and for all snake its way along and weaves its path through the eternal series of consequences,5 one eventually arrives at the first state of the world.35 And this state immediately reveals God, the Creator, the ultimate ground of events, and the fertile ground of so many consequences. Once this ultimate ground is posited, other grounds follow, and others from them, down through the ages which follow, in accordance with an ever constant law. The illustrious Crusius attacks the often used distinction between absolute and hypothetical necessity,36 his opponents thinking that, by means of this distinction, they would be able to escape him, as through a crack. But the distinction obviously has no power at all to break the force and effective power of necessity. For of what avail is it if the opposite of an event, which is precisely determined by antecedent grounds, can be conceived when it is regarded in itself, since the opposite still cannot occur in reality, for the grounds necessary for its existence are not present: indeed, it is the grounds necessary for the reverse which are present. The opposite of an
event which is assumed to exist in isolation can, nonetheless, you say, be thought, and thus it is possible. But what then? It still cannot come to be, for the grounds which already exist are sufficient to ensure that it can never come to be in fact. Consider an example: Caius has made a fraudulent claim. Honesty is not incompatible with Caius in virtue of his fundamental determinations; in other words, honesty is not incompatible with Caius in so far as he is a human being. This I grant. But honesty is certainly incompatible with him as he is determined now. For there are present within him grounds which posit the opposite, and honesty cannot be ascribed to him without overthrowing the entire series of interconnected grounds which stretch right back to the first state of the world. Let us now hear what this celebrated philosopher goes on to infer from this. The determining ground not only brings it about that this action in particular should take place: it also brings it about that no other actions could happen instead of it. Therefore, whatever happens within us has been foreseen by God in its orderly sequence in such a way that nothing else at all could happen. Thus, the charging to our account of the things we have done is charging us with what does not belong to us. But God is the one cause of all things: He has so bound us by those laws that we accomplish the fate to which we are destined, no matter what the circumstances. Does it not follow from this that no sin can be displeasing to God? For when a sin is committed, it also testifies to the fact that the series of interwoven events established by God admits of nothing else. Why then does God reproach sinners for actions which they were ordained to commit from the very seed and womb of the world?

**Refutation of objections.** When we distinguish hypothetical necessity, and in particular moral necessity, from absolute necessity, what is at issue here is not the force or the effective power of the necessity. We are not concerned, namely, whether a thing is, in some case or other, more or less necessary. What is at issue is the necessitating principle: namely, *whence* the thing is necessary. I readily admit that here some of the adherents of the Wolffian philosophy deviate somewhat from the truth of the matter. They are convinced that that which is posited by the chain of grounds which hypothetically determine each other still falls a little short of complete necessity, because it lacks absolute necessity. But in this matter I agree with their illustrious opponent: the distinction, which everyone recites parrot-fashion, does little to diminish the force of the necessity or the certainty of the determination. For just as nothing can be conceived which is *more true* than *true*, and nothing *more certain* than *certain*, so nothing can be conceived which is *more determined* than *determined*. The events which occur in the world have been determined with such certainty

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\[\text{\textsuperscript{k} omni rationum implicitarum ordine. \textsuperscript{l} eius consecutione ita a Deo prospectum est.}\]
that divine foreknowledge, which is incapable of being mistaken, apprehends, both their futurition^* and the impossibility of their opposites. And He does so in conformity with the connection of their grounds^* and as certainly as if the opposite were excluded by their absolute concept. But here the question hinges not upon to what extent but upon whence the necessary futurition of contingent things derives. Who is there who would doubt that the act of creation is not indeterminate^* in God, but that it is so certainly determinate^* that the opposite would be unworthy of God, in other words that the opposite could not be ascribed to Him at all. Nonetheless, however, the action is free, for it is determined by those grounds, which, in so far as they incline His will with the greatest possible certainty, include the motives of His infinite intelligence, and do not issue from a certain blind power of nature to produce effects.^* So, too, in the case of the free actions of human beings: in so far as they are regarded as determinate,' their opposites are indeed excluded; they are not, however, excluded by grounds which are posited as existing outside the desires and spontaneous inclinations of the subject, as if the agent were compelled to perform his actions against his will, so to speak, and as a result of a certain ineluctable necessity. On the contrary, it is in the very inclination of his volitions and desires, in so far as that inclination readily yields to the blandishments of his representations, that his actions are determined by a fixed law and in a connection which is most certain but also free. It is not a difference in the nature of the connection or the certainty which constitutes the distinction between physical actions and those possessed of moral freedom, as if these actions alone, subject to doubt in respect of their futurition and exempt from the chain of grounds, had a vague and indeterminate ground of coming to be. For, if that were the case, such actions would scarcely deserve to figure among the prerogatives of intelligent beings. But the way in which the certainty of their actions is determined by their grounds gives us all the room we need^* to affirm that they bear the characteristic mark of freedom. For such actions are called forth by nothing other than motives of the understanding applied to the will, whereas in the case of brute animals or physico-mechanical actions everything is necessitated in conformity with external stimuli and impulses and


^* nexus rationum conformiter.  * ambiguam.

^ determinatum / (this term, like the German bestimm, is ambiguous and may mean either ‘determinate’ or ‘determined’, this ambiguity infects the whole passage).

^ a quae quadratur naturae efficacia.  * determinatae.

^ omne paginam facit / B: kommt alles auf die Art an / C: fa di ogni pagina un argomento a difesa / E: makes every instance stand out as a record / F: donne toute latitude / R: _______ / (the phrase utramque paginam facere is to be found in Pliny and has the force of: ‘gives us the upper hand’ or ‘gives us the freedom to fulfil all the requirements’).

^ solicitationibus.
without there being any spontaneous inclination of the will. It is, indeed, generally admitted that the power to perform an action is suspended in a state of indifference relative to each of the two directions in which it could realise itself, and that it is determined exclusively by a pleasurable inclination towards the blandishments which arise from our representations. The more certainly the nature of man is bound by this law, the greater is the freedom which he enjoys. The exercise of freedom does not consist in being carried away in all directions towards objects by some vacillating impulse. He acts, you say, for no other reason than the fact that it pleased him thus most of all. I now already hold you prisoner by this confession of yours. For what is being pleased if it is not the inclination of the will in one direction rather than another, according to the attraction exercised by the object. Thus, your ‘it pleases’ or ‘it causes pleasure’ signifies that the action is determined by inner grounds. For it is the being pleased which, according to your opinion, determines the action. But that is nothing other than the satisfaction of the will by the object, according to the nature of the attraction exercised by that object on the will. Therefore, the determination is relative. And in the case of such a relative determination, to say that the will is equally attracted in two directions and that one direction is more pleasant is tantamount to saying that there is a pleasure which is at once equal and unequal. But that involves an inconsistency. But the case can arise where the grounds which incline the will in one of two directions completely escape our consciousness, but where, nonetheless, one alternative is chosen in preference to the other. But in that case, the thing passes from a higher faculty of the mind to a lower, and the mind is directed in one direction or another by the preponderance of an obscure representation in one direction rather than the other. (We shall be discussing this at greater length at a later stage.)

If the reader has no objections, I should like to illustrate this well-known dispute by means of a short dialogue between Caius, the advocate of the indifference of equilibrium, and Titius, the champion of the determining ground.

Caius: The course of my past life does, it must be admitted, cause me pangs of conscience. There is one consolation left to me, however, if one may believe what you say: responsibility for the misdeeds committed does not fall on me, for, bound as I was by the connected series of grounds which have determined each other from the very beginning of the world, I could not have failed to have done whatever I did do. And if anyone should reproach me now for my vices or vainly chide me for not having adopted a different way of life, that person would be behaving as foolishly

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* Potestatem quidem actionis ad utramvis partem indifferentem se habere.  ν lubuit.  ω lubitus.
* libet s. volupe.  ψ lubitus.  γ magis volupe.  ζ placere.
* representationis obscura . . suprapondiun.  ε indifferentiae aequilibrii.  δ nexu.
as he would be behaving if he were to rebuke me for not having brought the flow of time to a standstill. Titius: Let us see! What is this series of grounds by which you complain you were bound? Is it not the case that whatever you did, you did willingly? Is it not the case that when you were about to sin the silent exhortation of conscience and the fear of God, chiding you within, vainly raised their voices in loud admonition? Is it not the case that nonetheless you preferred to drink, to game, to sacrifice to Venus, and to do other things of the same kind? Were you ever constrained, against your will, to sin? Caius: I do not in the least dispute the truth of what you are saying. I know perfectly well that it was not a case of my having been, so to speak, seized by the scruff of the neck and carried off, struggling and energetically resisting what was attracting me, in a direction in which I did not wish to go. It was knowingly, and with pleasure that I surrendered myself to vice. But whence did I acquire this inclination of the will towards baseness? Was it not the case that beforehand, when laws, both human and divine, were inclining me in their direction while I was still undecided, it was already determined by a totality of grounds that I should incline towards the bad rather than towards the good? Is it not the case that positing a ground which is complete in all respects and then blocking its consequences is tantamount to making undone what has been done? But on your view, every inclination of my will has been completely determined by an antecedent ground and that, in its turn, by another antecedent ground, and so on right back to the beginning of all things. Titius: Well now, then, let me remove your misgivings. At any given juncture, the series of interconnected grounds furnishes motives for the performance of the action which are equally attractive in both directions: you readily adopted one of them because acting thus rather than otherwise was more pleasurable to you. But you say: it was already determined by the totality of grounds that I should incline in one particular direction. I should, however, like you to consider whether it is not the case that the spontaneous inclination of your will, according to the attractions of the object, is not required if there is to be a complete ground of action. Caius: Beware of saying ‘spontaneous’. The will could not have failed to incline in this direction. Titius: But this inclination of the will, far from eliminating spontaneity, actually makes spontaneity all the more certain, provided that ‘spontaneity’ is taken in the right sense. For spontaneity is action which issues from an inner principle. When this spontaneity is determined in conformity with the representation of what is best it is called freedom. The more certainly it can be said of a person that he submits to the law, and thus the more that person is

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c me non renitentem et affectamentis strenue oblactantem velut obtorto collo in transversum abreptum esse.

f rationum consumptione. s in partem destinatam. k spontanea propensio.
determined by all the motives posited for willing, the greater is that person's freedom. It does not follow from your line of argument that the power belonging to antecedently determining grounds impairs freedom. For your confession that you do not act unwillingly but with pleasure is sufficient to confute you. Hence your action was not unavoidable, as you seem indeed to think, for you did not seek to avoid it; it was, however, bound to happen, given the inclination of your desire relative to the situation as it was constituted. And this, indeed, increases your guilt. For the eagerness of your desire was such that you were not to be distracted from your purpose. But I shall despatch you with your own weapon. Tell me: in what manner, do you think, is the concept of freedom to be formulated so that it is more consonant with your opinion? Caius: Personally, I should think that if you eliminate everything which is in the nature of a connected series of reciprocally determining grounds occurring in a fixed order, and if you admit that in any free action whatever a person finds himself in a state of indifference relative to both alternatives, and if that person, even though all the grounds which you have imagined as determining the will in a particular direction have been posited, is nonetheless able to choose one thing over another, no matter what — if all that is conceded, then I should finally admit that the act had been freely performed. Titius: Heavens above! If any deity granted you this wish, how unhappy you would be at every moment of your life. Suppose that you have decided to follow the path of virtue. And suppose that your mind is already sustained by the precepts of religion and whatever else is effective in strengthening your motivation. And suppose that now the occasion for acting arrives. You will immediately slide in the direction of what is less good, for the grounds which solicit you do not determine you. I seem to hear you expressing still more complaints. Ah! What baleful fate has driven me from my sound decision? Of what use are precepts for performing the work of virtue? Actions are the product of chance; they are not determined by grounds. I do not, it is true, you say, complain of the constraint of fate which sweeps me along against my will; but I loathe the unknown something which makes me favourably disposed towards my fall into what is worst. The shame of it! What is the source of this hateful desire for what is precisely the worst course? — this desire which could just as easily have inclined me in the opposite direction. Caius: It is, therefore, all over with freedom of every kind. Titius: You see how I have driven your forces into a corner. Do not conjure up spectres of ideas; you feel that you are free; but do not fabricate a concept of freedom which is not in agreement with sound reason. To act freely is to act in conformity with one's desire and to do so, indeed, with consciousness. And that is

1 inexcitabilis. 1 infallibilis. k ad circumstantias ita informatas. 1 versus utramque partem indifferenter se habere.
certainly not excluded by the law of the determining ground. *Caius:* Although I have scarcely anything I can say in reply to you, it nonetheless seems to me that inner sense contradicts what you say.² For take a case of no great importance: if I pay attention to myself, I am aware that I am free to incline in either direction, so that I am sufficiently convinced that the direction of my action was not determined by an antecedent series of grounds. *Titius:* I am going to show you the silent deception which creates in you the illusion of the indifference of equilibrium. The natural force of desire, inherent in the human mind, directs itself not only towards objects but also towards the various representations which are to be found in the understanding. Accordingly, in so far as we feel that we are ourselves the authors of the representations which contain the motives for choice in a given case, so that we are eminently able either to focus our attention on them, or to suspend our attention, or turn it in another direction, and are consequently conscious of being able not only to strive towards the objects in conformity with our desire but also to interchange the reasons themselves in a variety of ways and as we please — in so far as all that is the case we can scarcely refrain from supposing that the addressing of our will in a given direction is not governed by any law nor subject to any fixed determination. But suppose that we make an effort to arrive at a correct understanding of the fact that the inclination of the attention towards a combination of representations is in this direction rather than in a different direction. Since grounds attract us in a certain direction, we shall, in order at least to test our freedom, turn our attention in the opposite direction, and thus make it preponderant so that the desire is directed thus and not otherwise. In this way, we shall easily persuade ourselves that determining grounds must certainly be present. *Caius:* You have involved me, I must confess, in a great number of difficulties. But I am convinced that you are faced by difficulties which are equally great. In what way, do you suppose, can the determinate futurition³ of evils, of which God is in the last analysis the ultimate determining cause, be reconciled with his goodness and holiness? *Titius:* In order to avoid fruitlessly wasting our time in futile disputes, I shall offer a brief account of the difficulties which prevent you from reaching a decision, and I shall then unite the knot of your doubts. The certainty of all events, both physical occurrences and

² Quamquam vix habeam, quod tibi regeram, tamen internus sensus sententiae tuae mihi videtur obloquent / B: Obwohl ich kaum weiss, was ich dir entgegenhalten könnte, scheint mir doch der innere Sinn deiner Meinung zu widersprechen / C: Quantunque ben poco abbia da contrapportarsi, mi pare tuttavia che a contrariarsi contro di te sia l'intimo significato della tua stessa tesi / E: yet the inner meaning of your view seems to me to jar / F: et pourtant un sentiment intérieur me paraît aller à l'encontre de ton opinion / R: although I have scarcely anything to urge against what you are saying, its inner meaning seems to me to be not quite right / (the word obloquent could not be employed in the manner suggested by the translations of B, C, and R; only F has construed the grammar of the sentence [and understood the logic of the argument] correctly).

³ determinatam...futuritionem (alt: determinate futurition).
free actions, is determined, the consequent being determined by the antecedent, and the antecedent being determined by antecedents which are still earlier, and so on by grounds which are ever more remote and extend backwards in a continuous series to the first state of the world. This state, which reveals God immediately as the Creator, is, so to speak, the well or bubbling spring from which all things flow with infallible necessity down an inclined channel. For this reason, you think that God is clearly indicated as the one who engineered evil. For this reason, too, you think that He cannot hate the web which He Himself began to weave, and which will continue to be woven, in accordance with the initial design, throughout the future centuries of times to come. It seems that He cannot persecute the sins, which have been interwoven into the tapestry, with all the anger to which the holiness of His nature entitles Him, since the blame for all these evils eventually redounds upon God Himself, as the one who first engineered their occurrence. These are the doubts which weigh upon your mind. I shall now dissipate the clouds. In instituting the origin of the totality of things, God initiated a sequence of events. This sequence, in the fixed connected series of interlinked, interconnected and interwoven grounds, embraced even moral evils, as well as the physical evils corresponding to them. From this, however, it does not follow that God can be accused of being the Author of morally corrupt actions. If, as happens in the case of machines, intelligent beings were to comport themselves passively in relation to those things which impel towards certain determinations and changes, I should not deny that the blame for all things could be shifted to God as the Architect of the machine. But those things which happen through the will of beings endowed with understanding and the spontaneous power itself of self-determination obviously issue from an inner principle, from conscious desires and from a choice of one of the alternatives according to the freedom of the power of choice. Hence, no matter how much the state of things prior to the free acts has been determined by some ground, and no matter to what degree the intelligent being is entangled in a connected series of circumstances which is such that it is certain that moral evils will result and that their occurrence can be foreseen, nonetheless, this futurition is determined by grounds which are so constituted that voluntary inclination towards what is base is the hinge upon which everything turns. And thus it is these grounds which must be called the causes of those things which it gave sinners the greatest pleasure to perform. And that they should pay the penalty for their illicit pleasure corresponds as perfectly as can be with justice. But as for the aversion with which God turns away from sins and which is indubitably

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* machinatorem. † primum molitorem. ‡ seriem.
§ quae stabilis rationum conserte contextuque colligaturum nexus. † in mechanicis.
⊠ semet ipsa sponte determinandi potestate. * electione . . . secundum arbitrii licentiam.
worthy of His holiness but which seems scarcely compatible with the decree which established the world and which included the futurition of these evils – even here the difficulty which surrounds the question is not insuperable. For that is how things stand.\footnote{\textit{Sic enim habeto} / B: \textit{Denn man muss das sonehmen} / C: \textit{Sta a sentire}! / E: Let us put it this way / (transferred to the beginning of the next paragraph) / F: \textit{Sois-en sûr} / R: \textit{______} / (this is a phrase often used by Cicero).}

The infinite goodness of God strives towards the greatest possible perfection of created things and towards the happiness of the spiritual world.\footnote{\textit{mundi spiritualis}.} With the same infinite striving to reveal Himself, God addressed Himself to creating not only a more perfect sequence of events, which was later destined to spring from the order of grounds, but in addition to that, and with a view to ensuring that no good, not even goods of a lesser degree, should be missing, and that the totality of things in its immensity should embrace everything from the highest degree of perfection possible for finite things, down to all the lower degrees of perfection, even including, so to speak, nothing itself, God also allowed things to creep into his scheme which, in spite of the admixture of many evils, would yield something which was good and which the wisdom of God would elicit from them, in order to embellish with infinite variety the manifestation of His divine glory. It was perfectly consonant with the wisdom, power and goodness of God that this whole should include the history of the human race; sad as that history is, it would contain, even in the turmoil of evils, numberless testimonies of the divine goodness. One may not, however, for that reason suppose that God was bent upon and deliberately produced the evils themselves which were interwoven into the work which He had begun. For it was the good upon which His eyes were focused: He knew that, once the balance of grounds had been drawn up, the good would nonetheless remain. He knew that the elimination of this good, along with the wretched tares, would not be worthy of His supreme wisdom. For the rest, mortals commit sins voluntarily and as a result of an inmost state of mind, for the chain of antecedent grounds does not hurry them along or sweep them away against their will; it attracts them. And although it was known in advance that they would certainly respond to the spur, nonetheless, since the origin of evils is to be found in the inner principle of self-determination, it is clearly apparent that the evils have to be attributed to the sinners themselves. Nor, for this reason, may one suppose that the divine power abhors sins the less on the grounds that, by having admitted them, God has in a way given His approval to them. For the real end which the Divine Artist had in view was to compensate for the evils, which had been permitted and which were to be remedied by strenuous effort. And this end He strives to attain by warnings, threats, encour-
agements and furnishing the means. By thus pruning away the branches which yield an abundant harvest of evils, and, in so far as it is compatible with human freedom, eliminating them, He has in this way shown Himself to be someone who hates all wickedness, but also to be someone who loves the perfections which can nonetheless be extracted from that source. But let me return to my path, for I have wandered rather further than I ought from the purpose of my undertaking.

Supplements to Problem IX

Divine foreknowledge is only possible in respect of free actions if it is conceded that their futurition is determined by their own grounds. Those who endorse our principle have always energetically urged this argument against those who have attacked the principle. I shall therefore spare myself the effort, for I shall have my hands full merely replying to the objections which the penetrating Crustius urges against our principle. He criticises those who think in this way for entertaining an opinion of God which is unworthy of Him, for it is as if they were convinced that God makes use of reasoning. And, indeed, in the case of this opinion, if there are any who think otherwise, I shall happily pass to the side of my illustrious opponent. For I admit that the winding course of reasoning is scarcely becoming to the measurelessness of the divine understanding. Nor does the infinite understanding need to abstract universal concepts, or combine them together, or, in order to establish conclusions, to compare them. But here we assert that God cannot foresee those things of which the futurition is not antecedently determined, not for the want of the means to do so, for we admit that He has no need of them, but because foreknowledge of a futurition is in itself impossible; for, if its existence is in itself and antecedently altogether indeterminate, it is nothing at all. For the fact that it is in itself indeterminate follows from its contingency. That it is likewise antecedently indeterminate is maintained by our opponents. It is, therefore, both in itself and as it must of necessity be represented by the divine understanding, completely free of determination, that is to say, of futurition.

Finally, our celebrated opponent candidly admits that there are still some things which we cannot understand. But that this should be so here, when our contemplation is extended to the infinite, is, he maintains, entirely in keeping with the sublimity of the object. However, it does not matter how willing I may be to admit that, in our eagerness to plumb the depths of knowledge, certain sanctuaries, containing knowledge of a more

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4 ra'tiocininis. 5 amphantus ratiosciniorum. 6 abstractione. 7 combinatione. 8 collatione.
9 ergo plane determinationis h.e. futuritionis express et in se est et a divino intellectu representa necesse est.
10 eminentia. 11 se in interiorem cognitionem descendere aequas.
abstruse character, will forever remain inaccessible to the human understanding. What does matter here is not how but whether the thing itself, namely, an antecedently indeterminate event, occurs. For it is not difficult for human knowledge to see that there is a conflict between it and the opinion of the opposite side.

Refutation of the arguments adduced by the defenders of the indifference of equilibrium to support their view. The supporters of the opposite party challenge us to give a satisfactory account of those cases which seem to witness to the indifference of the human will in respect of all free actions whatever, and to witness with such clarity that it seems scarcely possible that anything could be more obvious. If one plays odd or even and the beans held hidden in the hand are to be won by guessing, we say one or the other without any deliberation at all and without having any reason for our choice. Something similar to this is recounted about a prince, I know not which, who gave a free choice to someone between two caskets which were exactly alike in weight, form and appearance, and of which one contained lead and the other gold. Here, the determination to take one or the other cannot be the product of prior reasoning. Similar things are said about the freedom of indifference to move forward either with the right or left foot. I shall reply to all these points in a single word and, indeed, in a fashion which, it seems to me, will afford complete satisfaction. When our principle speaks of determining grounds, it is not to be understood to refer to some specific kind of ground, for example, the grounds which present themselves to the conscious understanding in the case of free actions. Our principle, on the contrary, maintains that, in whatever way an action is determined, it must be determined by some ground if it is to occur at all. Objective grounds may be completely absent from the determination of the power of choice, and there may be present a complete balance between the conscious representations of the motives. And yet, nonetheless, it is still possible for there to be a great many grounds which may determine the mind. For all that is brought about by such irresolute uncertainty is that the thing is transferred from a higher faculty to a lower, transferred from a representation which is conjoined with consciousness to representations which are obscure. And in their case, it can scarcely be maintained that everything on both sides is perfectly identical. The striving of an innate desire towards more and more perceptions does not permit the mind to persist for long in the same state. Accordingly, if the state of the inner representations is altered, the mind must incline in some direction or other.

\[1\text{reranda.} \quad \text{\textasteriskcentered{speciei.}} \quad \text{\textasteriskcentered{indifferenti . . libertate.}} \quad \text{\textasteriskcentered{in arbitrii determinatione.}} \quad \text{\textasteriskcentered{ancipii tali dubitatione.}} \quad \text{\textasteriskcentered{Tendentia appetitus insiti in ulteriores perceptiones.}}\]
Proposition X. Exposition of certain genuine corollaries of the principle of the determining ground.

(1) There is nothing in that which is grounded which was not in the ground itself. For nothing is without a determining ground; accordingly, there is nothing in that which is grounded which does not reveal its determining ground.

The objection might be raised that, since limits attach to created things, it follows that these limits likewise attach to God, who contains the ground of those limits. I reply as follows: the limits which attach to finite things show that their ground is likewise limited in the act of divine creation. For the creative act of God is limited according to the nature of the limited being which is to be produced. But since this act is only a relative determination of God which must correspond to the things to be produced, not an inner determination which is absolutely intelligible in itself, it is clear that these limitations do not belong internally to God.

(2) Of things which have nothing in common, one cannot be the ground of the other. This derives from the preceding proposition.

(3) There is no more in that which is grounded than there is in the ground itself. This follows from the same rule.

Implication. The quantity of absolute reality in the world does not change naturally, neither increasing nor decreasing.42

Elucidation. The obviousness of this rule is clearly apparent in the changes of bodies. If, for example, body A moves another body B by striking it, a certain force and therefore a certain reality* is imparted to the latter body. However, an equal quantity of motion is taken from the body which imparts the blow, so that the sum total of the forces in the effect is equal in magnitude to the forces of the cause. However, in the case of the collision of a smaller elastic body with one which is larger the law we have adduced seems to be false. But this is not at all the case. For the smaller elastic body in striking the larger is repelled by it, thereby acquiring a certain force in the opposite direction. This force, when added to the force which has been transmitted to the larger body, yields, it is true, a total which is greater than the quantity of force possessed by the body which strikes the blow, as is established in mechanics. However, the sum total, which in this case is ordinarily called absolute, ought, more strictly speaking, to be called relative. For these forces strive in different directions. Accordingly, the sum total of the forces is calculated from the effects which operate in conjunction with each other and are thus viewed

* In this case we may, in accordance with the usual sense of the term, conceive the imparted force as if it were a transmitted reality, although strictly speaking it is merely a certain limiting or directing of an inherent reality.

1 in rationate. 2 pro ratione (alt: proportionately to).
in general as a totality. The calculation is performed by subtracting from each other the motions which strive in different directions; for these motions will, of course, in virtue of the fact that they are opposed to each other, somehow eventually cancel each other out. What remains is the motion of the centre of gravity. And, as we know from statics, that motion is the same after impact as it was before. As for the complete destruction of motion by the resistance offered by matter: far from cancelling the aforesaid rule it actually serves to confirm it the more strongly. For the force which arises from rest as a result of the conjunction of several causes will return to rest by expending in its resistance to obstacles as much force as it has acquired, and the situation remains the same as it was before. Hence, the inexhaustible duration of mechanical motion is impossible. Since mechanical motion always expends a certain part of its force in resisting impediments, the supposition that its power to renew itself should nonetheless remain undiminished would equally contradict not only this rule but also sound reason, as well.

Very frequently we see enormous forces issue from an infinitely small initiating cause. How measureless is the explosive force produced when a spark is put to gunpowder? Or, again, to take another case, how great are the conflagrations, how extensive the destructions of cities, how vast the long-lasting devastations of immense forests which result from a spark when it is nourished by highly inflammable materials. How extensive is the structure of the bodies which may be destroyed by the tiny stimulus of a single spark. In these cases, however, the efficient cause of the enormous forces is a cause which lies hidden within the structure of bodies. I refer, namely, to the elastic matter either of air, as in the case of gunpowder (according to the experiments of Hales), or of the igneous matter, as is the case with all inflammable bodies whatever. The efficient cause is, in these cases, unleashed, rather than actually produced, by the tiny stimulus. Elastic forces which are compressed together are stored within; and if these forces are stimulated just a little, they will release forces which are proportionate to the reciprocal pressure exercised in attraction and repulsion.

Certainly, the forces exercised by spirits and the perpetual advances of those forces to higher perfections seem not to be governed by this law. But they are, in my opinion at least, nonetheless subject to that law. Without doubt, the infinite perception of the entire universe, which is always internally present to the soul, albeit only obscurely, already contains...

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\* idoneque ex effectibus, quos machinæ coniunctim applicatae adeoque et in universo summam spectaculæ exserere possunt, aeternum, summa virium cognoscatur.
\* motus centri gravitatis. \* perpetuitas inexhausta. \* ex infinite parvo causæ principiō.
\* corporum componer / B: Gefüße von Körpem / C: gigantesche struttuere corporee / E: a structure of bodies / F: assemblage de corps / R: corporeal structure.
\* materia . . . elastica. \* materia ignee. \* manifestatur. \* nisui.
\* infinita . . . totius universi percepit.
within itself all the reality which must inhere in the thoughts, which are later to be illuminated by a stronger light.\footnote{48 And the mind, at a later stage, by merely turning its attention to certain of these thoughts, illuminates them with a stronger light, while withdrawing an equal degree of illumination from certain others; in so doing, it daily acquires greater knowledge. It does not, it is true, extend the realm of absolute reality (for the material element of all ideas, which derives from connection with the universe, remains the same). But the formal element, which consists in the combination of concepts and in the application of attention either to their difference or agreement, certainly changes in a variety of ways. In exactly the same way, we notice something similar in the case of the force inherent in bodies. For motions, if they are rightly considered, are not realities but appearances.\footnote{4} And the inherent force, modified by the impact of the external body, resists collision in virtue of an inner principle of action, doing so with as much force as it had acquired in the direction of the forces of the impinging body which collides with it. It follows that all the reality to be found in the forces present in the phenomenon of motion\footnote{5} is equal to that which already inheres in the body when it is at rest, even though the inner power, which was indeterminate in respect of direction when it was at rest, is merely directed by the external impulse.

What has been adduced so far concerning the immutable quantity of absolute reality in the universe is to be understood in terms of the fact that everything happens in accordance with the order of nature. For who would dare to doubt that the flagging perfection of the material world could be restored by God’s intervention,\footnote{6} or that it was possible for intelligent beings to be illuminated by heaven with a light of greater purity than nature allows, and that all things could be raised to a higher peak of perfection?

\textit{Proposition XI. In which certain spurious corollaries, which have been incorrectly derived from the principle of the determining ground, are adduced and refuted.}\[1.5ex]

1. Nothing exists which does not have something which is grounded, in other words, whatever is has its consequence.\footnote{7} This principle is known as the principle of consequence. As far as I know, its originator was \textit{Baumgarten}, chief of the metaphysicians.\footnote{49 Since he proved this principle in the same way in which he demonstrated the principle of the sufficient ground,\footnote{8} the former is involved in the ruin of the latter. If we are only concerned with the grounds of knowing, then the truth of this principle is saved. For the concept of any being whatever is either general or individual. If the con-}

\begin{itemize}
  \item \textit{materiale.} \hspace{1cm} \textit{formale.} \hspace{1cm} \textit{phaenomenon.} \hspace{1cm} \textit{omne in phaenomeno motus virium reale.}
  \item \textit{Per Dei . . . operam.} \hspace{1cm} \textit{sui habere consequentiam.} \hspace{1cm} \textit{principium rationis.}
\end{itemize}
cept of a being is general, then it has to be admitted that whatever is established of the generic concept applies' to all the lower concepts which are subsumed under it, and hence that the former contains the ground of the latter concepts which are subsumed under it. If the concept of a being is individual, one may conclude that the predicates which belong' to this subject in a certain connection must always belong to it, given the same conditions. And, starting out from a given case, the concept determines the truth in similar cases; and hence the concept has that which is conditioned by a ground of knowing. But if we understand by this that which is conditioned by a ground of existence, beings will not be infinitely productive in this respect, as may be seen from the final section of this treatise. We shall there prove by incontestable arguments that the state of any substance, which has no connection with other substances, will be free from all change.

2. That there is no substance in the entire totality of things which is in all respects like any other substance. This principle is called the principle of indiscernibles. Taken in its widest sense, as it usually is, it could not be further from the truth. There are two ways, in particular, in which this principle is demonstrated. The first method of proof scarcely deserves close scrutiny, for it is precipitate to a degree, leaping over the object with a light spring. These are the sophistries employed: all things which agree perfectly in all characteristic marks and are not distinguished by any difference must, it seems, be taken for one and the same thing. Hence, all the things which are perfectly alike are nothing but one and the same thing, to which a number of different places are ascribed. Because this view conflicts with sound reason, it is alleged that it is self-contradictory. But is there anyone who does not notice the trickery of these sophistries? The complete identity of two things demands the identity of all their characteristic marks or determinations, both internal and external. Is there anyone who has excluded place from this complete determination? Accordingly, no matter how great the agreement of things in respect of their internal characteristic marks, things which are distinguished at least in virtue of place are not one and the same thing at all. However, the demonstration which we must examine in particular here, is the demonstration which is erroneously supposed to derive from the principle of the sufficient ground.

It is constantly being said that if two substances agree completely in all other respects, then there is no reason why God should assign different places to them. What nonsense! It amazes me that grown men of the greatest gravity should take a delight in such frivolous arguments. Let the one substance be called A and the other B. Let A occupy the place of του

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1 'compete.' / competunt. 2 iisdem positis rationibus. 3 rationata cognoscendi. 4 rationata existendi / B: im Dasein Begründetes / C: i razionati a livello di esistenza / E: rationata existendi / F: les effets de l'existence / R: existential consequences. 5 entia hisce in infinitum feracia non esse.
B. Since A does not differ from B at all in respect of internal characteristic marks, it follows that in occupying its place, it will be identical with it in all respects, and what was previously called A will now have to be called B; and that which bore the name B beforehand will now, having been transferred to the place of του A, have to be called A. For this difference of characteristics indicates a difference only of places. Tell me, therefore, whether God would have done anything different if he had determined the places in accordance with your opinion. The two are exactly the same; accordingly, the change invented by you is nothing; but it harmonises very well with my own view that for nothing there is no ground.

This spurious law is admirably refuted by the entire totality of things and also by what is appropriate to the divine wisdom. For that bodies which are said to be similar, such as water, mercury, gold, the simplest salts, and so forth, should agree completely in their primitive parts in respect of their homogeneous and internal characteristic marks, corresponds to the identity of the use and function which they are destined to fulfil. This is to be seen from their effects, which we observe issuing from those same things, always the same and never with any discernible difference. Nor is it proper here to suppose that there is some hidden difference which escapes the senses, so that God should have something, by reference to which, so to speak, he can distinguish the parts of his work, for that would be to search for knots in a bulrush.

We admit that Leibniz, the originator of this principle, always detected a discernible difference in the structure of organic bodies or in the organisation of other bodies of extreme complexity, and we admit that one may with justification assume that there is such a discernible difference in all cases of this kind. For, in cases where it is necessary that a number of different factors have to harmonise together in a very high degree before something can be produced, it is obvious that they cannot always yield the same determinations. Thus among the leaves of the same tree, you will scarcely find two which are completely alike. However, what we are rejecting here is only the metaphysical universality of this principle. Besides it seems that one can scarcely dispute the fact that an identity of type is often to be found in the forms of natural bodies. Is there anyone who would venture to deny that, in the case of the formation of crystals, for example, one could not find, among the infinite diversity of crystals, one or two which were the exact copies of another?

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* του B / (Kant employs the Greek definite article to make good the absence of the definite article in Latin, which he needs to identify the first positing of B).
1 του A. See note k above. * nihil nullam esse rationem. * tota rerum universitate.
* nodos in scorpio quaerere / B: Knoten an eine Binsen suchen / C: andare a cercare il pelo nell’uovo / E: to find a difficulty where there is none / F: chercher les difficultés là où il n’y en a pas / R: to launch an investigation into problems that do not exist.
* identitatem exemplaris.
Section 3. Presentation of the two principles of metaphysical cognition, both of which are extremely rich in consequences and derive from the principle of the determining ground

I. THE PRINCIPLE OF SUCCESSION

Proposition XII. No change can happen to substances except in so far as they are connected with other substances; their reciprocal dependency on each other determines their reciprocal changes of state.\textsuperscript{55}

Hence, a simple substance, which is free from every external connection and which is thus abandoned to itself and left in isolation, is completely immutable in itself.

Furthermore, even were this simple substance to be included in a connection with other substances, if this relation did not change, no change could occur in it, not even a change of its inner state. Thus, in a world which was free from all motion (for motion is the appearance of a changed connection\textsuperscript{1}), nothing at all in the nature of succession would be found even in the inner states of substances.

Hence, if the connection of substances were cancelled altogether, succession and time would likewise disappear.

Demonstration. Suppose that some simple substance, the connection of which with other substances had been cancelled, were to exist in isolation. I maintain that it could undergo no change of its inner state. The inner determinations, which already belong to the substance, are posited in virtue of inner grounds which exclude the opposite. Accordingly, if you want another determination to follow, you must also posit another ground. But since the opposite of this ground is internal to the substance, and since, in virtue of what we have presupposed, no external ground is added to it, it is patently obvious that the new determination cannot be introduced into the being.

The same differently. It is necessary that whatever is posited by a determin...

\textsuperscript{4} nexus permutatus phaenomenon.
mining ground be posited simultaneously with that determining ground. For, having posited the determining ground, it would be absurd if that which was determined by the determining ground were not posited as well. Thus, whatever determining factors exist in some state of a simple substance, it is necessary that all factors whatever which are determined should exist simultaneously with those determining factors. But since change is the succession of determinations, that is to say, since a change occurs when a determination comes into being which was not previously present, and the being is thus determined to the opposite of a certain determination which belongs to it, it follows that the change cannot take place by means of those factors which are to be found within the substance. If, therefore, a change occurs it must be the case that it arises from an external connection.

The same again somewhat differently. Suppose that a change takes place under the conditions specified. Since it begins to exist when it was not present previously, that is to say, when the substance was determined to the opposite, and since no grounds, apart from those which are internal, are supposed to be involved in determining the substance from any other source, it follows that the same grounds, by which the substance is supposed to be determined in a certain way, will determine it to the opposite, and that is absurd.

Elucidation. This truth depends on an easily understood and infallible chain of grounds. Nonetheless, those who give to the Wolffian philosophy its renown, have paid so little attention to this truth that they maintain, on the contrary, that a simple substance is subject to constant change in virtue of an inner principle of activity. Although I for my part am thoroughly familiar with their arguments, I am, nonetheless, convinced of their sterility. For once they have constructed an arbitrary definition of force so that it means that which contains the ground of changes, when one ought to declare that it contains the ground of determinations, they were bound to fall headlong into error.

Again, suppose that someone wished to know how, in the final analysis, the alterations, of which the succession is apparent in the universe, take place, granted that they do not issue from the internal factors of a substance considered in isolation. I would have that person turn his attention to things which follow as a consequence in virtue of the connection of things, in other words, in virtue of the reciprocal dependence of their determinations. For the rest, to offer a more detailed explanation of these

* determinantia.  † omnia omnino determinata.
† ficulnea / B: unfruchtabar / C: fasulli / F & R: trivial / F: sterilité / (ficulneus: lit: pertaining to a fig tree; trans: sterile, unfruitful: an allusion to the fact that fig trees, being sexed, cannot bear fruit in isolation).
" arbitrium definitionem.  " ex internis.
matters here would take us rather beyond the limits of our treatise. Accordingly, our demonstration establishing that the matter certainly could not be otherwise will have to suffice.

*Application.* 1. Firstly, I find that the real existence of bodies, which a more sensible philosophy has hitherto only been able to defend against the idealists by appealing to probability, follows with the greatest clarity from what is asserted in our principle. For the soul is subject (in virtue of the inner sense) to inner changes. Since, as we have proved, these changes cannot arise from its nature considered in isolation and as disconnected from other things, it follows that there must be a number of things present outside the soul with which it stands in a reciprocal connection. It is likewise apparent from the same considerations that the change of perceptions also takes place in conformity with external motion. It follows from this that we could not have a representation, which was a representation of a body and which was capable of being determined in a variety of ways, unless there was a real thing present to hand, and unless its interaction with the soul induced in it a representation corresponding to that thing. For this reason, it can easily be inferred that the compound, which we call our body, exists.

2. Our proof utterly overthrows the Leibnizian pre-established harmony, not, as is generally the case, by means of final causes, which are thought to be unworthy of God and which not infrequently supply only an unreliable support, but by means of the internal impossibility of the thing itself. For it follows immediately from what we have demonstrated that, if the human soul were free from real connection with external things, the internal state of the soul would be completely devoid of changes.

3. Our demonstration furnishes the opinion that some kind of organic body must be attributed to all spirits whatever with powerful evidence of its certainty.

4. Our proof deduces the essential immutability of God, not from a ground of knowing deriving from His infinite nature, but from a principle which is peculiar to the nature of the Supreme Divinity. The Supreme Divinity is completely free from all dependency whatever, and, since the determinations which belong to Him are not based upon any external relation at all, it is abundantly clear from what we have said that the state of God is completely free from change.

*Scholium.* It might perhaps seem to some that the principle we have adduced may be suspected of wrong-headedness on account of the indissolubility of the connection with which the human soul is thus bound with matter in carrying out its internal functions of thought, a view which

* qui rhis mutuo nexo complexa est.  
* sed e genuino sui principio / (genuinus: from ingenuus; alt: innate, natural).
seems not that remote from the pernicious opinion of the materialists. But I do not deprive the soul of its representational state, even though I openly admit that the soul’s state would be immutable and constantly like itself if it were completely released from external connection. And should anyone, perchance, seek to provoke a dispute with me, I should refer the matter to the modern philosophers who unanimously and as if with one voice openly declare that the connection of the soul with an organic body is necessary. I shall call only one witness from their number, the celebrated Crusius. He is, I notice, so completely of my opinion that he frankly asserts that the mind is bound by a law, according to which its striving to produce representations is always united with a striving of its substance to produce a certain external motion, so that if the latter is hindered the former is also impeded. But although he does not regard this law as so necessary that it could not be suspended, if God so willed, nonetheless, since he concedes that the nature of the mind is governed by that law, it would have to be admitted that the nature of the mind would also have to be transcended, if that law were suspended.

II. THE PRINCIPLE OF CO-EXISTENCE

Proposition XIII. Finite substances do not, in virtue of their existence alone, stand in a relationship with each other, nor are they linked together by any interaction at all, except in so far as the common principle of their existence, namely the divine understanding, maintains them in a state of harmony in their reciprocal relations.

Demonstration. Individual substances, of which none is the cause of the existence of another, have a separate existence, that is to say, an existence which can be completely understood independently of all other substances. If, therefore, the existence of some substance or other is posited simply, there is nothing inhering in it which proves the existence of other substances distinct from itself. But since a relation is a relative determination, that is to say, a determination which cannot be understood in a being considered absolutely, it follows that a relation and its determining ground can neither of them be understood in terms of the existence of a substance, when that existence is posited in itself. If, therefore, nothing further than this were admitted, no substance would stand in relation to any other substance, and there would be no interaction at all between substances.

1 statum representatum. 2 conatus in.
3 transire (Leibniz coined the term to designate the supernatural act by which the animal soul is endowed with reason; cf. Théodiceé § 91.)
4 nullis se relationibus respectibus. 5 nulloque plane commercio continentur.
6 mutuis respectibus conformatae / (conformare: cf. OLD conformo (3): to make to correspond or agree; to bring into harmony with).
Since, therefore, in so far as each individual substance has an existence which is independent of other substances, no reciprocal connection occurs between them; and since it certainly does not fall to finite beings to be the causes of other substances, and since, nonetheless, all the things in the universe are found to be reciprocally connected with each other — since all this is the case, it has to be admitted that this relation depends on a communality of cause, namely on God, the universal principle of beings. But it does not follow from the fact that God simply established the existence of things that there is also a reciprocal relation between those things, unless the self-same scheme of the divine understanding, which gives existence, also established the relations of things to each other, by conceiving their existences as correlated with each other. It is most clearly apparent from this that the universal interaction of all things is to be ascribed to the concept alone of this divine idea.

Elucidation. I think that I am the first to have established, by means of reasons which are in the highest degree certain, that the co-existence of the substances of the universe is not sufficient to establish a connection between them. There is required, in addition, a certain community of origin and, arising therefrom, an harmonious dependence. For, to repeat briefly the main line of my demonstration: if substance A exists, and if, in addition, B exists, then this latter can be considered as positing nothing in A. For suppose that it determined something in A, that is to say, suppose that it contained the ground of a determination C. Since this is a kind of relative predicate and hence not intelligible unless A is present, in addition to B, it follows that substance B will, in virtue of those factors which are the reason of του C, presuppose the existence of substance A. But since, if substance B existed alone, its existence would leave it completely indeterminate whether a certain substance A would have to exist or not, it will be impossible to understand from the existence of B alone that it posits anything in other substances distinct from itself. Hence there is no relation and no interaction at all. If, therefore, God had created, in addition to substance A, other substances B, D, E, and so on to infinity, their reciprocal dependency on each other in respect of their determinations would, nonetheless, not immediately follow from the fact of their existence. Nor, since, in addition to A, there also exist B, D, and E, and A is somehow determined in itself, does it follow that B, D, E have determinations of existence consonant with A. Accordingly, the ground of their reciprocal dependence upon each other must also be present in the manner of their common dependence on God. How that is brought about is

1 communione causae. 2 idem . . . intellectus divini schema. 3 divinae ideae conceptus soli.
4 communionem quandam originis et harmonicae ex hoc dependentiam.
5 e data ipsarum existentiae. 6 huic conformes . . . existendi determinationes.
easy for the understanding to comprehend. The schema of the divine understanding, the origin of existences, is an enduring act (it is called preservation); and in that act, if any substances are conceived by God as existing in isolation and without any relational determinations, no connection between them and no reciprocal relation would come into being. If, however, they are conceived as related in God's intelligence, their determinations would subsequently, in conformity with this idea, always relate to each other for as long as they continued to exist. That is to say, they would act and react; and the individual substances would have a certain external state. But if you abandoned this principle, no such state could exist in virtue of their existence alone.

*Application.* 1. Since place, position, and space are relations of substances, in virtue of which substances, by means of their reciprocal determinations, relate to other substances which are really distinct from themselves and are in this way connected together in an external connection, and since, furthermore, our demonstration has shown that the mere existence of substances does not in itself involve connection with other substances, it is obvious that, if you posit a number of substances, you do not at the same time and as a result determine place, position, and space, this last being compounded of all these relations. But, since the reciprocal connection of substances requires that there should be, in the effective representation of the divine intellect, a scheme conceived in terms of relations, and since this representation is entirely a matter of choice for God, and can therefore be admitted or omitted according to His pleasure, it follows that substances can exist in accordance with the law which specifies that *they are in no place* and that they stand in no relation at all in respect of the things of our universe.

2. There could be, if God so willed, a number of such substances, free from any connection with our universe, but, nonetheless, linked with each other by means of a certain connection of their determinations so as to produce place, position, and space: they would constitute a world banished beyond the limits of the world, of which we are parts, that is to say, they would constitute a solitary world. For this reason, the possibility that there might be, had it so pleased God, a number of worlds, even in the metaphysical sense, is not absurd.

3. Since, therefore, the existence of substances is completely insufficient on its own to establish their reciprocal interaction or any relation between their determinations; and since, accordingly, their external con-

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\(^{k}\) respective.

\(^{l}\) haque ratione sexu externo continentur / (continentur: cf. OLD contineo (1): to join together, link, connect).

\(^{m}\) confiatur. \(^{n}\) in efficaci representaione. \(^{o}\) respective conceptam delineationem.

\(^{p}\) Deo plane arbitraria.
nection proves that there is a common cause of all things, in which their existence has been conceived as standing in relation to other existences, and since, too, it is not possible, without this communality of principle, to conceive a universal connection, it follows that it is impossible to infer with the greatest certainty that there is a supreme cause of all things, and, indeed, only one, that is to say, God. Indeed, this proof, in my opinion, seems to be far superior to the proof from contingency.\( ^63 \)

4. Our principle also utterly overthrows the extravagant opinion of the Manicheans, who set up two principles which are equally primary and independent of each other, and which exercise dominion over the world.\( ^64 \) For a substance can only interact with the things of the universe either if it is their common cause or if it has issued from the same cause as the things in the universe. Accordingly, if you declare that one of these two principles is the cause of all things, it follows that the other can in no wise determine anything in them. If you declare that one of the two principles is the cause of at least some things in the universe, it follows that these things will not be able to interact at all with the remaining things in the universe. Alternatively, you must either declare that one of the two principles depends on the other, or that they both depend on a common cause. But both positions are equally incompatible with the hypothesis.

5. Furthermore, since the determinations of substances are reciprocally related to each other, that is to say, since substances which are distinct from each other reciprocally act on each other (for one substance determines certain things in the other substance), it follows that the concept of space is constituted by the interconnected actions of substances, reaction always being of necessity conjoined with such interconnected actions.\( ^65 \) If the external appearance of this universal action and reaction throughout the whole realm of the space in which bodies stand in relation to one another consists in their reciprocally drawing closer together, it is called attraction. Since it is brought about by co-presence alone, it reaches to all distances whatever, and is Newtonian attraction or universal gravity. It is, accordingly, probable that this attraction is brought about by the same connection of substances, by virtue of which they determine space. It is also probable that it is the most fundamental law of nature governing matter, remaining constantly in force only in virtue of God’s immediately sustaining it, according to the opinion itself of those who declare themselves to be followers of Newton.

6. All substances, in so far as they are connected with each other in the same space, reciprocally interact with each other, and thus they are dependent on each other in respect of their determinations. It is, hence, possible to understand the universal action of spirits on bodies and of bodies on

\* sine hac principii communione. \* absolviatur. \* phaenomenon. \* maxime primitivam. \* continentur.
spirits. But no substance of any kind has the power of determining other substances, distinct from itself, by means of that which belongs to it internally (as we have proved). It follows from this that it only has this power in virtue of the connection, by means of which they are linked together in the idea entertained by the Infinite Being. It follows that, whatever determinations and changes are to be found in any of them, they always refer, indeed, to what is external. Physical influence, in the true sense of the term, however, is excluded. There exists a universal harmony of things. Nonetheless, this does not give rise to the well-known Leibnizian pre-established harmony, which is properly speaking agreement between substances, not their reciprocal dependency on each other. For God does not make use of the craftsman’s cunning devices, carefully fitted into a sequence of suitably arranged means designed to bring about a concord between substances. Nor, moreover, is there an ever special influence of God, that is to say, an influence through which the interaction of substances is here established by means of Malebranche’s occasional causes. For the same indivisible act, which brings substances into existence and sustains them in existence, procures their reciprocal and universal dependence, so that the divine act does not need to be determined, now one way, now another, according to circumstances. There is rather a real reciprocal action between substances; in other words, there is interaction between substances by means of truly efficient causes. For the same principle, which establishes the existence of things, also brings it about that they are subject to this law. And, hence, reciprocal interaction is established by means of those determinations which attach to the origin of their existence. For this reason, one is equally justified both in saying that external changes may be produced in this way by means of efficient causes, and also in saying that the changes which occur within the substance are ascribed to an internal force of the substance, although the natural power of this force to produce an effect rests, no less than the foundation of the external relations just mentioned, on divine support. However, the system of the universal interaction of substances, constituted in this way, is certainly somewhat superior to the popular system of physical influence, for the former, to be sure, reveals the origin itself of the reciprocal connection of things; and this origin is to be sought outside the

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principle of substances, considered as existing in isolation. And, in this respect, that threadbare system of efficient causes could not be further from the truth.

**Scholium.** Here, kind reader, you have the two principles of a deeper metaphysical cognition. By their means you may acquire no inconsiderable power in the realm of truths. Indeed, if this science be thus carefully cultivated, its soil will be found not to be so barren. The objection of futile and obscure subtlety, raised against it by those who scorn it, will be refuted by an ample harvest of more remarkable knowledge. There are, it is true, certain people who are passionate in their hunting down fallacious conclusions in the writings of others, and who are adepts at invariably extracting a kind of venom from the opinions of others. I do not wish to dispute that they may, perhaps, be able to twist some of what we say, even in this work of ours, in an unfavourable sense. But I shall allow them to indulge their opinions, for I do not think that it is incumbent on me to worry about what someone may happen wrong-headedly to think. My concern is rather to proceed along the straight path of enquiry and knowledge. And I ask, with due respect, that whoever looks with favour on proper scholarship may be well-disposed towards my efforts.

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4 nobilioris.
5 indaginis atque doctrinae / B: der Forschung und Lehre / C: dell’indagine e dell’insegnamento / E: investigation and speculation / F: de la recherche et de la science / R: investigation and in a way appropriate to science.