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IMMANUEL KANT Prolegomena to Any Future Metaphysics

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IMMANUEL KANT

Prolegomena to Any Future Metaphysics

That Will Be Able to Come Forward as Science with Selections from the Critique of Pure Reason

TRANSLATED AND EDITED BY GARY HATFIELD

University of Pennsylvania

Revised Edition





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Introduction

It was characteristic of the great modern philosophers to attempt, each in his own way, to rebuild philosophy from the ground up. Kant embraced this goal more fully than any other classical modern philosopher. And his work did in fact change philosophy permanently, though not always as he intended. He wanted to show that philosophers and natural scientists were not able, and would never be able, to give final answers to questions about the nature of the physical world and of the human mind or soul, and about the existence and attributes of a supreme being. While he did not accomplish precisely that, his work changed philosophy's conception of what can be known, and how it can be known. Kant also wanted to set forth new and permanent doctrines in metaphysics and morals. Though his exact teachings have not gained general acceptance, they continue to inspire new positions in philosophical discussion today.

Kant stands at the center of modern philosophy. His criticism of previous work in metaphysics and the theory of knowledge, propounded in the *Critique of Pure Reason* and summarized in the *Prolegomena*, provided a comprehensive response to early modern philosophy and a starting point for subsequent work. He rejected previous philosophical explanations of philosophical cognition itself. His primary target was the rationalist use of reason or "pure intellect" – advanced by Descartes and Leibniz – as a basis for making claims about God and the essences of mind and matter. Kant argued that these philosophers could not possibly know what they claimed to know about such things, because direct knowledge of a mindindependent reality exceeds the capacity of the human intellect. He thus had some sympathy with the conclusions of empiricist philosophers, such as Locke and Hume, who prescribed limits to human understanding. But,

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he contended, because these philosophers also did not analyze human cognition properly, they lacked knowledge of the principles by which the boundaries of human knowledge might be charted, and they did not understand the foundation of the legitimate metaphysics falling within those boundaries. Kant maintained that even the empiricist attitude to knowledge, if unchecked by an account of reason's boundaries, would inevitably extend beyond its own domain in the world of nature, and would lead to unjustified assertions about such topics as the free will of human beings and the existence of God, assertions that he feared would conflict with a proper theory of morals.

Kant explained his own revolutionary insight by analogy with the Copernican revolution in astronomy. As Kant observed, Copernicus was better able to account for the phenomena of astronomy by assuming that the motion attributed to the stars actually results from the motion of the observer as stationed on the earth.¹ The sixteenth-century astronomer attributed a daily rotation to the earth, rather than to the planets and stars themselves, and he accounted for yearly cycles in the motions of the sun and planets by attributing a yearly revolution to the earth. Kant held that he could account for the human ability to know the basic properties of objects only on the assumption that the knower him- or herself contributes certain features to those objects as known. He thus held that the fundamental characteristics of objects as experienced – characteristics described by mathematics (especially geometry) and also by metaphysical concepts such as cause and substance - result from something that the knowing subject brings to such experience. At the same time, he did not deny that objects taken as things in themselves play a role in producing perceptual experience – though this aspect of his position has proven difficult to interpret. The questions that he raised about the relation of the knower to the known, and the perspective he provided concerning the contribution of the knower to the representation or cognition of the world as it is known, produced a revolution that continues to influence philosophy today. Philosophers as diverse as G. W. Hegel, Rudolf Carnap,

¹ Kant, *Critique of Pure Reason*, B xvi; the relevant passage may be found in the selections from the *Critique* included in this volume. The use of "A" and "B" to cite the first and second editions of the *Critique* is explained in the Note on texts and translation; other abbreviations used in citing Kant's works are explained in the section on Further reading, which also provides publication details for other works cited. Page and section numbers appearing in the text of this Introduction are to the *Prolegomena* and the *Critique* selections as translated herein.

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C. I. Lewis, and Hilary Putnam have positioned themselves in relation to Kant.

Kant was deeply engaged with the intellectual issues of his time and culture. In what he termed "theoretical philosophy" (now called "metaphysics and epistemology"), he not only directly engaged the current philosophical theories of cognition, but he tested their ability to account for paradigmatic instances of knowledge, in the mathematics and natural science of his day. He was intent that theoretical philosophy explain the doctrines, nature, and cognitive basis of these "sciences" (as he called any systematic body of knowledge). Kant was especially interested in the philosophical implications of Newton's physics in relation to both metaphysics and morals, for he was concerned that the deterministic picture of the world in physics posed a threat to the idea of moral freedom. At the same time, he hoped to help advance natural science in its own right, by fully analyzing its cognitive foundation and fundamental concepts.

From the time Kant's writings appeared, they have been the object of philosophical discussion and debate. Many interpretations have been offered, which differ both on large questions, including interpreting the fundamental message of Kant's philosophy, and in the more detailed assessment of his particular arguments and doctrines. Such interpretive disagreement is normal in the case of writings that are both difficult and important. Further, part of the value of philosophical writing lies in the effort that each reader must make to understand its arguments and its conclusions, its assumptions and its overall vision, for him- or herself. The primary aim of this Introduction, then, is neither to characterize the results of two centuries of interpretive responses to Kant, nor to describe the present state of debate. Rather, it is to provide a context within which readers can approach Kant's texts for themselves.

Life and writings

Immanuel Kant was born in Königsberg on 22 April 1724. Königsberg (now Kaliningrad), located near the southeastern shore of the Baltic Sea, was an important regional port, alive with English, Dutch, Polish, and Russian traders. It was the capital of East Prussia, which had become a "kingdom" in 1701 when Frederick I crowned himself in Königsberg. In the year of Kant's birth, the "old city" of Königsberg was joined with two neighboring towns to become a city of 50,000, which was larger than

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Berlin, where the Prussian rulers resided. It had a castle and a garrison, was a regional center of the arts, and had its own university, founded as the Collegium Albertinus in 1544 and known in Kant's time as the Albertus University in Königsberg.

Kant was the fourth-born of many children, of whom five lived to adulthood. His parents were pietist Lutherans of modest means, his father a master harness maker. After a few years of grammar school Kant's talent was recognized by a family friend, the Lutheran pietist preacher Franz Albert Schultz, who had studied with the foremost philosopher in Germany, Christian Wolff. Schultz recommended to Kant's mother that the boy (then eight) should attend the Lutheran Collegium Fridericianum. It was primarily a Latin school, strict and pedantic, where Kant studied the classics, largely by rote; the enforced outward piety experienced in this school was an impetus to his lifelong endeavor to separate the social practices of religion from its intellectual and moral substance. Kant's mother, whom he greatly respected and admired, died in 1737. He went on to study at the University in Königsberg from 1740 to 1746, supporting himself with the help of his uncle, by tutoring, and through his skill at billiards and card games. He was especially drawn to mathematics, natural science, and philosophy, which he studied under the Professor of Logic and Metaphysics, Martin Knutzen, a student of Wolff's. During this period Kant came to admire the work of Isaac Newton as a paradigmatic achievement in natural science, and in 1746 he wrote the True Estimation of Living Forces,² attempting to settle a dispute in mechanics that had arisen from G. W. Leibniz's criticism of Descartes' mechanics during the 1690s.

Kant finished his doctoral dissertation in 1755 and received his Habilitation that same year, which meant that he could serve as a private lecturer licensed by the University (but paid directly by the students). He was a popular lecturer and covered a broad curriculum, which included logic, mathematics, morals, physics, metaphysics, and physical geography. During this time he was a productive writer, publishing several works in natural science, including his contribution to the Kant–Laplace nebular hypothesis in 1755 and the *Physical Monadology*, which posits repulsive forces to explain the space-filling character of matter, in 1756. In the *New Elucidation*, also from 1755, he first addressed the theme of metaphysical

² Full English titles to Kant's major works are listed in the Chronology.

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cognition, which was to occupy him all his life. His Only Possible Argument of 1763 was an extended reflection on unity, harmony, and order in nature as an argument for the existence of God. In the Distinctness of the Principles of Natural Theology and Morality, Kant analyzed metaphysical cognition in relation to mathematical cognition, emphasizing their dissimilarity. His Dreams of a Spirit-Seer of 1766 described metaphysics as investigating "the boundaries of human reason."³ During the 1760s Kant became an admirer of the writings of Jean-Jacques Rousseau on education and moral philosophy.

As his reputation grew Kant turned down opportunities for appointment elsewhere, having his heart set on a professorship in Königsberg. In March 1770, at the age of 45, he finally received his appointment at the Albertus University, as Professor of Logic and Metaphysics. He continued to lecture on the topics already mentioned, and during the 1770s added anthropology, education, natural theology, and natural law to his repertoire. His "Inaugural Dissertation" for the new appointment was On the Form and Principles of the Sensible and the Intelligible World,⁴ where he distinguished sensible and intelligible "worlds," the first being known via sensory cognition of things as they appear (i.e., phenomena), the second via intellectual cognition of things as they are in themselves (i.e., noumena). He regarded space and time as phenomena determined a priori (i.e., independently of experience) by the "forms" or laws of human sensibility. By contrast, intellectual cognition of things via the intellect alone (in its "real," as opposed to "logical," use) proceeds apart from the senses and from the forms of space and time, and grasps the intelligible world of substance through the "form" of its causal relations.

After the publication of the Inaugural Dissertation, Kant entered his "silent decade," which produced no major publications and which ended in 1781 with his most significant work of all, the *Critique of Pure Reason*. In September 1770, just after the Inaugural Dissertation had appeared, Kant wrote to the philosopher J. H. Lambert that he intended to put forth a more extended treatment of both metaphysics and morals; he also spoke of a discipline that must "precede" metaphysics, called "general phenomenology," in which "the principles of sensibility, their validity and limitations, would be determined, so that these principles do not

3 Ak 2:368.

⁴ De mundi sensibilis atque intelligibilis forma et principiis (Königsberg, Royal Court and University Printing Works, 1770); English translation in *Theoretical Philosophy*, 1755–1770.

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confound our judgments concerning objects of pure reason."5 In 1772 he conveyed his current thoughts on these projects to his friend and student Marcus Herz. He predicted that the first part of his new investigation, concerning "the sources of metaphysics, its methods and limits," would be completed about three months hence; he called the entire investigation of theoretical and practical cognition from the intellect alone a "critique of pure reason." He reported that, having reflected on previous efforts in theoretical philosophy (including his own), he saw the need to pose a new question, which contained the "key" to metaphysics: "I asked myself: What is the ground of the relation to the object of that in us which is called representation?"⁶ This question was one spark leading to Kant's "critical philosophy." He later credited the stimulus of the "antinomies" of pure reason - reason's conflicts with itself on basic metaphysical questions as well as a nudge from Hume – presumably his questioning the rational justification of the law of causation (that every event has a cause) – with arousing him from his "dogmatic slumber" (pp. 10, 94-7) and driving him to investigate the cognitive basis of metaphysics.7

Kant's *Critique of Pure Reason* appeared not three months, but nine years after his letter to Herz. It was followed by another major work about every two years until 1790; these included the *Prolegomena*, the *Meta-physics of Morals*, the *Metaphysical Foundations of Natural Science*, and the second and third of his major "critical" works, the *Critique of Prac-tical Reason* and the *Critique of the Power of Judgment*.⁸ When the 1781 edition of the first *Critique* appeared, Kant did not yet foresee the second and third *Critiques*, which respectively explained the possibility of moral judgment and examined the conditions for judgments of beauty and of natural purpose (teleology). They continued Kant's exploration of the function of reason itself, as a faculty that seeks unity between the understanding's cognition of nature and natural laws, and its own grasp of the moral law and of the harmony, systematicity, beauty, and organization of

⁵ Kant to Lambert, 2 September 1770, Ak 10:98 (2nd edn.); translation modified from CZ.

⁶ Kant to Herz, 21 February 1772, Ak 10:132, 130, translation modified from CZ.

⁷ On the antinomies, see Kant to Christian Garve, 21 September 1798, Ak 12:257–8 (*CZ*); in a letter to J. Bernoulli, 16 November 1781 (as he was undertaking the *Prolegomena*), Kant recalls having realized, by 1770, that metaphysics needed a "touchstone," since equally persuasive metaphysical propositions could lead to contradictory conclusions (Ak 10:277; *CZ*).

⁸ The word "critique" translates the German *Kritik* (*Critick* or *Critik* in Kant's day), which could also be translated as "criticism." But "critique" is used in English to denote Kant's special project of criticism, and the adjective "critical" is used as a label for his philosophy as expressed in the three *Critiques* and related writings.

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nature. The vision of reason as seeking unity between the natural and moral worlds was an inspiration to many of Kant's philosophical descendants, including the German Idealists (J. G. Fichte, F. W. Schelling, and Hegel) and the influential Neo-Kantians (Heinrich Rickert, Wilhelm Dilthey, and Ernst Cassirer). It remains of interest today, as philosophers reflect on the natural scientific picture of the world and seek to determine the relation between that picture and the moral, political, historical, legal, and aesthetic visions inherent in the social and cultural world of humankind.

Kant continued to work throughout the 1790s. His *Religion within the Limits of Reason Alone* (1793) examined the limits to any attempt to base religion on natural speculative reason, and endorsed a compatibility between religion and practical or moral reason. After his retirement from teaching in 1796 he revised and published his lecture notes on anthropology (1798). Others subsequently published his lecture notes in other subjects, including logic (1800), physical geography (1802), and pedagogy (1803), and after his death the notes of students who attended his courses were published in various collections and editions.

He was struggling with another major work intended to "complete" the critical system when his health failed him at the age of 79. By December 1803, he could no longer write his name, and by 3 February he was speaking in broken phrases. Yet when his physician, who was Rector of the University, called upon him, he insisted on standing until his guest was seated, putting enough words together to explain his act of politeness by saying, "The sense of humanity has not yet abandoned me."9 From that day he faded quickly, eating almost nothing, and he died on 12 February 1804. Kant's body lay in state until 28 February when a long procession, led by a group of university students carrying the body, brought it to the cathedral for interment in the "professors' vault." The complete text of his last, unfinished work was published more than a century later (in 1936-8), as the Opus postumum. On the hundredth anniversary of his death a monument was erected in Königsberg, containing a famous line from the concluding section of the Critique of Practical Reason: "Two things fill the mind with always fresh and growing wonder and veneration, the more often and the more continuously they are reflected upon: the starry heaven above me, and the moral law within me."10

⁹ Cassirer, Kant's Life and Thought, pp. 412–13. ¹⁰ Ak 5:161.

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Kant's project to reform metaphysics

When Kant conceived the first *Critique* and the *Prolegomena*, metaphysics was a much-discussed field of philosophy with a long history, and it was a regular part of the university curriculum. Alexander Baumgarten's Metaphysics, a popular textbook, which Kant used in his courses, defined metaphysics as "the science of the first principles in human cognition."¹¹ Baumgarten followed Wolff's division of metaphysics into ontology, cosmology, psychology, and natural theology. He defined ontology as the science of the "predicates of being," i.e., of general predicates for describing what does or might have being, or exist. (Examples of such predicates include "possible" and "true," "substance" and "accident," and "cause" and "effect.") Cosmological topics included the world as a whole, its order and causal structure, the substances composing it, and the relation of natural and supernatural. Psychology considered the existence and properties of the soul or mind, the various "mental faculties," such as sense, imagination, and intellect, the freedom of the will, and the immortality of the human soul. Natural theology sought to determine the existence and the attributes of God or a supreme being without appeal to faith, i.e., by appealing only to facts as evaluated by natural human reason.

At the time Kant was lecturing on Baumgarten, Aristotle's *Metaphysics*, in which the Greek philosopher discussed both "being" and a "first being," had been an object of philosophical discussion for more than 2,000 years.¹² Modern metaphysicians developed alternatives to Aristotelianism. In the *Meditations on First Philosophy* (1641), Descartes argued for a dualistic metaphysics in which mind and body are distinct substances.¹³ Wolff's

¹¹ Alexander Gottlieb Baumgarten, *Metaphysica*, 7th edn. (Halle, 1779), §1. The 4th edn. is reprinted in Ak 15:5–53, 17:5–226, along with Kant's annotations. His most direct discussions of Baumgarten's metaphysics are found in his *Lectures on Metaphysics*, ed. and trans. by K. Ameriks and S. Naragon (Cambridge, Cambridge University Press, 1996); the lecture set closest in time and content to the *Prolegomena* is the Metaphysics Mrongovius, dating from 1782–3.

¹² According to an oft-repeated story, which apparently first arose in the sixteenth century, Andronicus of Rhodes, who edited Aristotle's works in the first century BCE, coined the term "metaphysics" to describe his placement of Aristotle's work on first philosophy "after the physics" ("after" being one sense of "meta"). In his lectures Kant questioned the plausibility that the name "metaphysics" arose in this manner, arguing that the term fits the subject matter too well, for one sense of "meta" is "beyond," and the subject matter of metaphysics includes what is "beyond the physical" (Ak 28.1:174). Takatura Ando, *Metaphysics: A Critical Survey of Its Meaning*, 2nd edn. (The Hague, Nijhoff, 1974), pp. 3–6, summarizes a more recent argument against the Andronicus story.

¹³ The standard edition, containing all of Descartes' works cited herein, is *The Philosophical Writings of Descartes*, 2 vols., ed. by John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1984–5).

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important metaphysical system, partly inspired by that of Leibniz, helped to make Leibniz's own metaphysics of simple substances or "monads" better known. Although there was no universally accepted definition of metaphysics, most agreed that it was concerned with the basic structure of reality. There was disagreement over its method. Descartes wanted to base his metaphysics on the pure intellect alone, independent of sensory experience. Wolff and Baumgarten, by contrast, admitted empirical propositions into metaphysics.¹⁴ Kant rejected this view, contending that metaphysical propositions must possess absolute certainty of a kind that could not be attained from sensory experience, but could be achieved only by the pure understanding. But although Kant had written metaphysical works based on the presumed "real use" of the intellect, from 1772 on he was deeply skeptical of metaphysical claims put forward on this basis when they concerned objects (including God and the soul) that could not be objects of sensory perception. And yet he also (at least eventually) held that it is inevitable that human reason be drawn toward making such claims - for he considered the impulse toward metaphysics to be as "natural" to human beings as the impulse toward breathing (p. 118).¹⁵

Kant was not the first to call metaphysics into question. John Locke, in his *Essay Concerning Human Understanding* (1690), had questioned the possibility of knowledge of the "real essences" of substances, including mind and body. David Hume raised serious objections against the possibility of metaphysical knowledge, including knowledge of the soul as a substance, and knowledge of the existence and attributes of God. Hume's *Inquiry Concerning Human Understanding* appeared in German translation in 1755. His three-volume *Treatise of Human Nature* (1739– 40) was not fully translated until 1790–1, though the concluding section of Book I, summarizing his skeptical and "subjective" account of causal reasoning, appeared in the local Königsberg literary paper in July 1771.¹⁶

¹⁴ Christian Wolff, *Philosophia rationalis, sive logica* (Frankfurt and Leipzig, 1740), preliminary discourse, §§10, 34, 55–59, 99–101; Baumgarten, *Metaphysica*, §§351, 503. On Wolff's philosophy, and his relation to Leibniz, see Beck, *Early German Philosophy*, ch. 11 (on Leibniz himself, see ch. 10).

¹⁵ Consider the first sentence of the "A" Preface to the *Critique of Pure Reason* (A vii), where Kant says, concerning metaphysics: "Human reason has the peculiar fate in one genus of its cognition: that it is troubled by questions that it cannot refuse; for these questions are put to it by the nature of reason itself, which cannot answer them, for they surpass all power of human reason."

¹⁶ The translation of *Treatise*, Bk. 1, pt. iv, sec. 7, by Johann Georg Hamann, appeared anonymously (and without attribution to Hume) in the *Königsberger Zeitung*, 5 and 12 July 1771. It is printed in Hamann's *Samtliche Werke*, ed. by Josef Nadler, 6 vols. (Vienna, Herder, 1949–57), vol. 4, pp. 364–70.

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Hume elaborated his arguments against natural theology in the *Dialogues Concerning Natural Religion* (1779); Kant presumably cites the German translation of 1781 below (§58), since he did not read English.

During his "silent decade" Kant had undertaken to evaluate the very possibility of metaphysical cognition. This led him to investigate the "origin" of that cognition in the faculties of the human mind. He came to see metaphysical cognition, as well as the fundamental propositions of mathematics and natural science, as having a peculiar, and hitherto unrecognized, cognitive status, which he described as "synthetic a priori." Kant divided all judgments, and the propositions expressing those judgments, into "analytic" and "synthetic." He held that an analytic judgment can be known to be true solely on the basis of the concepts used in the judgment, because the predicate term is already "contained in" the concept of the subject. Thus, the judgment "ontology is the science of being" could be known to be true solely by reflection on the concept of ontology, for this concept includes the meaning "science of being." In synthetic judgments, by contrast, the predicate term adds something new to the concept of the subject. "Metaphysics is in trouble" is a synthetic judgment Kant would have accepted - but on any reasonable definition, "being in trouble" was not part of the very concept of metaphysics. Kant also divided propositions into a posteriori, i.e., "based on sensory experience," and a priori, i.e., "known independently of sensory experience." Neither of these divisions was wholly new with Kant; what was new was his suggestion that metaphysical cognition is characterized by synthetic *a priori* propositions, that is, by propositions in which a new predicate is conjoined to the subject term, and in which the basis for this connection is known a priori, independently of sensory experience.

Although other modern philosophers before Kant, including Descartes,¹⁷ Locke, and Hume, had conceived of the project of examining the knower and the knower's cognitive capacities, Kant's investigation stands apart because he provided a novel and an especially thorough examination of the powers and capacities, or "faculties," of the human mind, which he explicitly linked to determining the very possibility of

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¹⁷ Descartes, *Rules for the Direction of the Mind*, rules 8, 12, proclaims the need to examine the "knowing subject" in order to determine what can be known. On theories of cognition more generally prior to Kant, see Gary Hatfield, "The Cognitive Faculties," in *Cambridge History of Seventeenth Century Philosophy*, ed. by Michael Ayers and Daniel Garber (Cambridge, Cambridge University Press, 1998), pp. 953–1002.

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metaphysics. Moreover, Kant's conclusions differed significantly from those of his predecessors. His so-called "deduction" of metaphysical concepts claims to justify the use of such concepts, but it justifies them differently than would either a rationalist or an empiricist. This deduction also put limits on the use of these concepts, of a kind that would undercut rationalist metaphysics. Like Descartes, Kant thought that metaphysics could provide a systematic body of theoretical first principles, but he denied that it provides knowledge of substances as they are in themselves. And like Locke and Hume, he held that human speculative cognition must be limited to the domain of human sensory experience, but he did not agree that all knowledge comes from sensory experience - some knowledge is based in the synthetic a priori propositions of mathematics, natural science, and metaphysics. He justified such propositions in a novel manner, by grounding them upon things he claimed could be known a priori about the possibility of experience, such as the "forms of sensibility" that condition all experience (pp. 34-6), or conditions on the possibility of "judgments of experience" (pp. 49-53).

Significantly, Kant did not hold that the knowledge conveyed by these synthetic *a priori* propositions exhausts what can be discussed in metaphysics. For he affirmed that transcendental philosophy, in determining the boundaries of metaphysical cognition, makes room for the (perhaps "problematic") concept of "intelligible beings," beings existing apart from sensory experience (though in some cases underlying sensory experience). He restricted metaphysical *knowledge* to propositions that can be justified by appeal to the conditions of possible experience, but he allowed metaphysical *thinking* to cover a broader range. In his view, a proper science of metaphysics must set out the legitimate propositions of metaphysics, while also determining the boundaries of their application. The latter task included assuring that the objects of experience are not taken to exhaust the entire domain of being, leaving room for human freedom and allowing for the existence of God – without proving either.

Origin and purpose of the Prolegomena

Kant had several aims in the *Prolegomena*. He wanted to offer "preparatory exercises" to the *Critique of Pure Reason* (pp. 11, 25). He wanted to give an overview of that work, in which the plan of the whole could be more readily discerned (p. 13). He wanted to restate its main arguments and

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conclusions following the "analytic" method of exposition (as opposed to the "synthetic" method of the *Critique*), a method that starts from some given proposition or body of cognition and seeks principles from which it might be derived, as opposed to a method that first seeks to prove the principles and then to derive other propositions from them (pp. 13, 25–6).¹⁸ He considered the analytic mode of exposition to be more suited to clarity and to "popular" consumption (to the extent that that could be achieved).¹⁹ Finally, Kant wanted to clarify some points of the exposition (p. 132), not being satisfied with the corresponding chapters of the *Critique* (including the "deduction" of the categories and the "paralogisms" of pure reason). The new work was motivated both by a desire to redress the disappointing reception of the *Critique* by publishing a more approachable work, and by a desire to improve the exposition of crucial points.

Kant was correct to think that an overview would be of great value. The *Critique of Pure Reason* is an imposing book. In 1781, even sympathetic readers found it difficult to comprehend. Kant soon wrote to Herz expressing his discomfort in learning that the eminent philosopher Moses Mendelssohn had "laid my book aside," since he felt that Mendelssohn was "the most important of all the people who could explain this theory to the world."²⁰ Mendelssohn later wrote to Elise Reimarus confessing that he did not understand the work, and professing pleasure at learning that, in the opinion of her brother, he would not be "missing much" if he continued not to understand it.²¹ Kant's friend and former student J. G. Hamann wrote to Kant's publisher in November, 1781, confessing that he had read the book three or four times, and that now his best hope was the projected "abstract" or "textbook" version (the *Prolegomena*).²²

¹⁸ The distinction between analytic and synthetic *methods* is entirely separate from the distinction between analytic and synthetic *judgments*, as is explained subsequently in this Introduction.

¹⁹ Kant, Logic, A Manual for Lectures, ed. by Jäsche, §117, in Lectures on Logic, ed. by J. Michael Young (Cambridge, Cambridge University Press, 1992), p. 639.

²⁰ Kant to Herz, after 11 May 1781, Ak 10:270 (*CZ*). The letter is from June, July, or even August, 1781; see Translator's introduction to the *Prolegomena*, in Kant, *Theoretical Philosophy after 1781*, n. 7 (p. 466).

²¹ Mendelssohn to Elise Reimarus, 5 January 1784, in his Gesammelte Schriften (Stuttgart, Frommann, 1971–), vol. 3, p. 169; her brother was Johann, and their father was the noted natural theologian Hermann Samuel Reimarus.

²² Hamann to Hartknoch, November, 1781, *Hamanns Leben und Schriften*, ed. by C. H. Gildemeister, 6 vols. (Gotha, 1875), vol. 2, p. 370.

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1784 *Exposition of Kant's Critique of Pure Reason*, mentioned the "nearly universal complaint about the unconquerable obscurity and unintelligibility" of the work, saying that for the largest part of the learned public it was "as if it consisted in nothing but hieroglyphics."²³

That the Critique of Pure Reason should have seemed imposing to Kant's contemporaries is not surprising. After all, the work constituted an avowed attempt to introduce a new question into metaphysics - that of the possibility of metaphysics itself - and to answer this question within a framework set by Kant's new thesis that metaphysics rests on synthetic a priori cognition. Kant's denial of a "real use" of the intellect (such as would provide "intellectual intuition" of the natures of things) would have puzzled rationalists, just as his argument that laws of nature can be derived from the conditions on any possible experience of objects would have been difficult for empiricists to understand. In any case, based on his new framework, Kant wove a set of difficult arguments, with whose exposition he was in several cases displeased, and which filled 856 pages in the first edition. As Kant expressed it in the Prolegomena, he had reason to fear that his work would "not be understood . . . because people will be inclined just to skim through the book, but not to think through it; and they will not want to expend this effort on it, because the work is dry, because it is obscure, because it opposes all familiar concepts and is long-winded as well" (p. 11). Such an investigation, he said at the time, must "always remain difficult, for it includes the metaphysics of metaphysics."24

Kant was at work on the *Prolegomena* by Fall 1781, he finished writing in Fall 1782, and it had appeared by mid-April of 1783.²⁵ While he was working on it the first two reviews of the *Critique* appeared, and he responded directly to both of them in the Appendix of the *Prolegomena*. The first, written by Christian Garve and heavily edited by J. G. Feder, came out anonymously in January 1782. Kant was displeased at the unfair treatment he considered himself to have received from a reviewer who did not understand the aim and method of his work. As he observes, the review failed to mention his important claim that metaphysical cognition is synthetic *a priori*, instead focusing on the "transcendental idealism" that

²³ Erläuterungen über des Herr Professor Kant, Critik der reinen Vernunft (Königsberg, 1784), pp. 5, 7.

²⁴ Kant to Herz, after 11 May 1781, Ak 10:269 (CZ).

²⁵ This chronology relies on: Hamann to Hartknoch, 11 August 1781, in *Hamanns Schriften*, ed. by Friedrich Roth, 8 vols. (Berlin, 1821–5), vol. 6, p. 206; Hamann to Hartknoch, September, 1782, *Hamanns Leben*, vol. 2, p. 409; Plessing to Kant, 15 April 1783, Ak 10:311.

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formed part of Kant's answer to the question of how synthetic *a priori* cognition can be achieved in metaphysics. The review does summarize and criticize Kant's conclusions rather than discussing his methods or his goal of assessing the possibility of metaphysics. Kant was especially sensitive to its charge that his position amounted to Berkeleyan idealism, that is, to a denial of the reality of anything except immaterial minds and their ideas or representations. The second and third Notes in the First Part of the *Prolegomena* respond to this charge. The second review, by S. H. Ewald, appeared anonymously in August 1782, when Kant was nearly finished writing. This review presented Kant's project to assess the possibility of metaphysics through a new "science" of transcendental philosophy. Beyond its laudatory introduction, the review is largely put together by copying Kant's own phrasing. He was pleased with this one, and offered it as a model for how the critical philosophy should be judged: carefully, suspending judgment at first, and working through it bit by bit (pp. 131–2).²⁶

To aid this process, Kant offered the Prolegomena "as a general synopsis, with which the work itself could then be compared on occasion" (p. 131). The *Prolegomena* are to be taken as a plan, synopsis, and guide for the Critique of Pure Reason. They were not meant to replace the Critique, but as "preparatory exercises" they were intended to be read prior to the longer work. Yet to do so can pose a problem, since in the Critique Kant had introduced his own special terminology (discussed below), which he often used in the Prolegomena without explaining it. (In some cases, such as the distinction between analytic and synthetic judgements, he explained his terminology more fully in the later work, and then used the new material in the second edition of the Critique.) Partly in order to make up for this practice, this volume includes some selections from the Critique in which Kant explains his terminology. In addition, some of the appended selections provide further statements of Kant's conception of the critical philosophy, including his famous comparison of his new theory of the relation of cognition to its objects with the Copernican revolution in astronomy. And some of the selections supplement the discussion in the Prolegomena with key portions of the Critique, including

²⁶ Both reviews are translated in this volume. Garve later told Kant that he originally wrote a longer, better review which was subsequently mangled by whomever edited it (13 July 1783, Ak 10:328–33; CZ). His original review was later published in the *Allgemeine deutsche Bibliothek*, appendix to vols. 37–52, 2nd part (Fall, 1783), pp. 838–62; it is translated in Morrison's edition of Schultz, *Exposition*.

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the "Metaphysical Exposition of the Concept of Space" from the "Transcendental Aesthetic"; Kant's introduction of the notion of a deduction from the "Analytic"; selections from the "Analytic of Principles," including portions of the "Schematism," "Analogies," and the "Refutation of idealism"; a sample of the original statement of one of the antinomies from the "Dialectic"; and Kant's description of the difference between mathematical and philosophical cognition from the "Method." The selections from the "Schematism" and "Analogies" summarize some main implications of Kant's new, but limited, metaphysics.

Notes on terminology

Kant's elaborate terminology can seem imposing. But it must be mastered, because his philosophy cannot be understood without a good grasp of the vocabulary in which he expressed it. Problems arise for the present-day reader not only because Kant used special terminology, but also because since the time he wrote the meanings of words have changed (in both English and German).

Consider the word "science." English speakers are familiar with "science" as having the connotation "natural science," and hence as denoting physics, chemistry, biology, and (sometimes) psychology. In the eighteenth century the German word *Wissenschaft*, as well as the French, Latin, Italian, and English cognates for "science," were understood to mean any systematic body of knowledge, usually with the implication that it would be organized around first principles from which the rest of the body of knowledge might be derived (more or less rigorously). Mathematics, and especially Euclid's geometry, was a model for how "scientific" expositions of knowledge should be organized. Disciplines as diverse as mathematics, metaphysics, and theology were all called "sciences." Hence, it was entirely normal for Kant to speak of metaphysics as a science.

For his analysis of the faculties of cognition, Kant largely drew on an existing technical vocabulary for discussing the processes and objects of human cognition, adapting it to his own ends. Included here are terms for various mental "representations," including "intuitions" and "concepts," and for various cognitive acts, such as "judgment" and "synthesis." "Intuition" translates the German term *Anschauung*; both have the etymological sense of "looking at" or "looking upon." In this context the word "intuition" does not have the connotation of "following a feeling," as

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when we speak in English of "deciding by intuition." Rather, it describes a mental representation that is particular (not abstract), and that presents objects concretely (as an image does). Kant contrasts intuitions with concepts, which he considered to be abstract and general representations, potentially relating to many objects at once (pp. 159–60, 163–4). Kant also speaks of a "manifold of intuition"; the word "manifold" here trades on its original meaning of "many-fold," indicating a "multiplicity" or something having many parts or elements.

Kant's important distinction between analytic and synthetic judgments has been discussed above. We have also seen that he used the terms "analytic" and "synthetic" in another context, separate from this distinction, when he distinguished the "synthetic" method of the *Critique* from the "analytic" method of the *Prolegomena*. Here, "method" refers to both method of exposition and method of arguing; whereas the analytic method starts from a given body of cognition and seeks the principles from which it might be derived (in the present case, by analyzing the cognitive powers and capacities of the knower), the synthetic method seeks to establish those principles by direct analysis of the relevant cognitive powers. Kant also contrasts the "analytic" part of what he calls "transcendental logic" with the "dialectic" part. Here, "analytic" means analysis of the procedures of understanding and reason into their "elements," and discovery of the principles for the critique of such knowledge, especially those principles that set the conditions for the very thought of an object.

In Kant's usage, "logic" meant not only general logic, which in his time was syllogistic logic, but also what he called "transcendental logic," in which the cognitive conditions on "thinking" objects are determined. The term "to think an object" is a characteristically Kantian form of expression. Kant used the German *denken* (English "to think") as a transitive verb taking a direct object. This gives the connotation not merely of "thinking of an object," as when we picture an object, such as a favorite chair, to ourselves, but it expresses a conception of this process as an active forming of a mental representation of the chair.

Special attention should be given to Kant's use of the words "subject" and "object." Except in the compound phrase "subject matter," in what follows the word "subject" (which translates the German *Subjekt*) always means the thinking subject, that is, the one who is having the thoughts or doing the cognizing. "Object" (*Objekt, Gegenstand*) can mean physical objects located in space, or it can mean the object of thought, that is, the

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object currently represented in thought, or toward which one's thought is currently directed (as in "the object of my desire").

In Kant's time the classical meaning of the term "skeptic" was someone who sought to suspend judgment on theoretical questions by showing that reason is in conflict with itself, as in the "Antinomies" (pp. 24–5, 99, 102). A second meaning pertained to skepticism about the existence of an external, material world, as in Berkeleyan or dogmatic idealism, or about its provability, as in Cartesian or problematic idealism (pp. 44–5, 88–9, 126–7, and 189). Kant treated the "Antinomies" as an instance of skeptical conflict, from which he concluded that the metaphysical positions expressed in their theses and antitheses should be qualified through his system of transcendental idealism. He also addressed external-world skepticism, in his response to Garve–Feder (pp. 126–7) and in the "Refutation of idealism" (pp. 189–91).

Kant used many other words in semi-technical ways, sometimes drawing on established patterns of usage in the eighteenth century, and sometimes initiating new usage. The reader is advised to attend to how words are used in varying contexts, and to consult a good English dictionary to gain familiarity with the interpretive possibilities for terms whose meaning seems difficult to grasp. One especially noteworthy case is the term "deduction," which Kant used to name an important part of the critical philosophy; this term does not denote logical deduction, but, as he explained in the Critique (p. 166), it is a legal term for a response to a demand for justification. Another term is "apperception," which was used by Leibniz to mean awareness of one's own perceptions; Kant used the term in this sense, and maintained that the possibility of such awareness requires the ability to unify one's perceptions in a single act of consciousness, termed the "unity of apperception" (pp. 70, 86, 179-80). Other cases requiring special attention include "condition" and "conditioned"; something is "conditioned" by antecedent states of affairs that set the "conditions" for its occurrence, as the heat of the fire is a "condition" that determines the temperature of the soup, the heated soup then being a state of affairs that is "conditioned." Another problematic word is "determine," which translates the German bestimmen. It can mean "to ascertain," as when a botanist "determines" the species of a plant; it can mean "to render definite or specific," as when, with several options open, an outcome is determined or "made determinate"; it can mean "produced according to a strict rule or law," as when an action follows "deterministically,"

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or is "determined according to natural law." Finally, the word "merely" is used frequently to translate Kant's word *bloss*, which can mean "just" and "only"; it need not, and usually does not, have a derogatory connotation, but, as in the case of "mere understanding," indicates that the discussion pertains to the understanding by itself, alone, or independent of the other faculties.

Yet other terms might be discussed, such as "aesthetic," which names a division of critical philosophy, or "transcendental philosophy" and "critical philosophy" themselves, as well as technical terms such as "construction in intuition" or "philosophical analysis of concepts." These are explicitly discussed by Kant in various places; their interpretation, which requires seeing the role they play in Kant's philosophy, is left to the reader. Some further questions about terminology and some issues concerning Kant's long sentences and his use of punctuation (especially the colon) are addressed in the Note on texts and translation.

Structure of the work

The *Prolegomena* sets a problem and offers a solution based on extended argument. This section lays out the main features of this structure, indicating, but not fully summarizing, key points of the argument.

Preface (pp. 5–14). Kant describes the need for his critique of metaphysics, the relation of his project to previous philosophy, and the relation of the *Prolegomena* to the *Critique*. His program begins by asking the novel question: "Whether such a thing as metaphysics is even possible at all?" Hume challenged metaphysics with his doubt that reason perceives a necessary connection between cause and effect; Hume did not question whether the concept of cause "is right, useful, and, with respect to all cognition of nature, indispensable," but whether the causal connection "is thought through reason *a priori*," and thus "has an inner truth independent of all experience" that allows it "a much more widely extended use that is not limited merely to objects of experience."²⁷ Hume's question "awakened" Kant from his "dogmatic slumber"; he realized that valid metaphysical cognition must be based on *a priori* concepts of the

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²⁷ Note that Kant does not characterize Hume's problem as a skeptical challenge to causal reasoning in natural science or everyday experience, and that he includes in it the determination of limits on the use of the causal concept. On Kant's conception of "Hume's problem," see Kuehn, Kant: A Biography, pp. 256–8, and Hatfield, "The Prolegomena and the Critiques of Pure Reason."

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understanding. The "deduction" of the (pure) concepts of the understanding resulted, leading to the discovery of principles that determine the boundaries of metaphysical knowledge, and establishing the basic content of any possible metaphysics. Because the *Critique* is long and difficult, Kant is abridging its contents in these *Prolegomena*, following the "analytic" as opposed to the "synthetic" method.

Preamble (§§1-3). Kant presents criteria by which metaphysical cognition can be distinguished from that of other sciences. §1. By its very nature, metaphysical cognition has an *a priori* source (from pure reason); it is philosophical, as opposed to mathematical. §2. Analytic and synthetic judgments are distinguished. 2a. The predicate in analytic judgments is already "thought" in the concept of the subject. 2b. Analytic judgments are based on the principle of contradiction: any denial of their truth leads to a contradiction. Kant holds "gold is yellow" to be analytic, its truth following from the fact that (as he thinks) "gold is not yellow" is selfcontradictory. Synthetic judgments cannot be based on this principle.²⁸ Such judgments can be either a posteriori, that is, founded on experience, or *a priori*, arising from the pure understanding. 2b.1. Judgments of experience are always synthetic; an analytic judgment would not need to be based on experience. 2b.2. Mathematical judgments are synthetic a priori; they rely on the construction of concepts in intuition, not on the mere analysis of concepts. 2b.3. Properly metaphysical propositions, such as the judgment that substance persists, are synthetic and a priori, and the aim of metaphysics is to generate such propositions. §3. Previous metaphysicians, including Wolff and Baumgarten, did not realize that metaphysical judgments are synthetic, and so tried to derive them from the principle of contradiction; Locke dimly understood the distinction between analytic and synthetic judgments, but Hume did not.

General Question (§4). Because no undisputed body of metaphysical knowledge exists, the General Question of the *Prolegomena* arises: "Is metaphysics possible at all?" Following the analytic method, Kant will first determine how synthetic *a priori* cognition is possible in pure mathematics and pure natural science; he will then "derive, from the principle of the possibility of the given cognition, the possibility of all other synthetic cognition *a priori*."

²⁸ Kant does not provide an example at this point; presumably, the judgment "this gold is mine" is not analytic but synthetic because its opposite, "this gold is not mine," can be thought without contradiction.

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General Question (§5). Kant restates the question as: "How are synthetic propositions a priori possible?" The existence of metaphysics as science depends on a successful answer to this difficult question, which belongs to "transcendental philosophy," a science that precedes metaphysics and determines its possibility. The "main transcendental question" is further divided into four questions: the first two respectively ask about the possibility of pure mathematics and pure natural science, the third asks about the possibility of metaphysics in general, and the fourth asks about the possibility of metaphysics as science.

First Part (§§6-13, Notes). Kant asks how mathematical cognition, which is apodictic (i.e. absolutely certain) and hence a priori, is possible (§6); he answers that such cognition, being intuitive rather than discursive, must be based, *a priori*, on construction in intuition (\S_7). He then asks how an intuition could be *a priori* (§8), and answers that, since intuition of things "as they are in themselves" would have to be based on experience, intuition can be *a priori* only if it contains the mere form of sensibility, which precedes all actual sensory impressions and determines the form in which objects can be intuited; hence, propositions that are a priori valid of the objects of the senses can relate only to the form of intuition, and a priori intuitions cannot relate to objects other than those of the senses (§9). Space and time are the forms of sensory intuition, upon which the propositions of geometry, arithmetic, and pure mechanics are based; they make possible *a priori* cognitions of objects only as they *appear* to us (§10); pure mathematics is therefore possible only because it relates merely to objects of the senses, and then only to the form of sensibility, which provides the basis for pure *a priori* intuition (§11). In geometry, proofs of the equality of two figures depend on judgments of congruence, based upon "immediate intuition"; if such intuition were empirical, it could not support the apodictically certain propositions of geometry; Kant mentions other geometrical proofs to show that they cannot be based on concepts but require intuition. Hence pure mathematics is based on pure a priori intuitions (§12). The consideration of incongruent counterparts shows that spatial objects cannot be adequately cognized by concepts alone, but require intuitions; this observation will free the reader of the conception that space and time are qualities of things in themselves (§13).²⁹ Note I.

²⁹ Presumably Kant is here arguing against a position according to which knowledge of the intelligible world could not come via the forms of sensibility, but would result from the "real use" of the

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The applicability of geometry to objects in physical space can be guaranteed only if those objects are regarded as appearances and space as the a priori form of sensibility. Note II. Kant's position is not (genuine) idealism, which holds that there are only thinking beings, for he affirms the existence of objects considered as things in themselves, while limiting our knowledge of such objects to their appearances; he maintains what are called the primary qualities - extension, place, space, and all that depends on it - pertain only to appearance, just as Locke had earlier asserted of warmth, color, and taste that they pertain to appearances, not to things in themselves. Note III. Kant's position does not turn bodies into illusion, but it explains how pure mathematics can apply to bodies (and so, how geometry can be taken as describing the properties of bodies in space), and it prevents transcendental illusion as found in the antinomies; hence, his transcendental or critical idealism is to be distinguished from the empirical or dreaming idealism of Descartes and the mystical or visionary idealism of Berkeley.

Second Part (§§14-39). §§14-17. Kant asks how pure natural scientific cognition, i.e., cognition of the laws of universal natural science, is possible. Such laws include: "that substance remains and persists," and "that everything that happens always previously is determined by a cause according to constant laws" (§15). Such laws could never be known to apply to things in themselves, but only to nature as an object of experience, or as the sum total of objects of experience; truly universal laws, however, cannot be based on experience, but must be a priori (§§14, 16). Kant then asks (§17): "How is it possible in general to cognize a priori the necessary conformity to law of experience itself with regard to all of its objects?" He introduces a distinction between "judgments of experience" and "judgments of perception."30 The latter concern only the subjective states of individual perceivers; the former are valid for other perceivers and at other times (§18). Genuine experiences of nature (expressing universally valid laws) must be judgments of experience (§19). Kant finds that judgments of experience are possible only through the a priori application of pure concepts of the understanding, elsewhere called the categories

intellect, hence would be mediated by intellectual representations alone, i.e., by concepts. For further discussion, see Jill Vance Buroker, *Space and Incongruence: The Origin of Kant's Idealism* (Boston, Kluwer, 1981).

³⁰ Although this precise distinction is not found in the *Critique*, it captures aspects of the Deduction. A similar contrast between "perception" and "experience" occurs in the "B" deduction, §26 (B 159–61).

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(§20). He discusses the derivation of these concepts from the logical table of judgments (§21), and the need for them in all judgments of experience (§22). Such judgments provide rules or principles for the possibility of experience, and these rules are laws of nature; therefore the problem of *a priori* cognition of the laws of nature has been solved (§23). After some cryptic remarks on the Pure physiological table (§§24–5), Kant sums up by observing that the ground for explaining (and proving) the possibility of *a priori* cognition of nature at the same time limits such cognition to objects of experience as opposed to things in themselves (§26).

Kant then sets about to dispel Hume's doubt about causality, also extended to the concepts of substance and their causal interaction (§27). The law of cause (and principles concerning the persistence of substances, and their interaction) can be sustained only when limited to the domain of possible experience (§28-31). Similarly (§32), the pure concepts of the understanding and the principles based upon them are valid only for appearances (phenomena), not for things in themselves (noumena). Though pure concepts can seem to have a transcendent use, beyond all possible experience, this appearance is illusory; the senses do not permit us to cognize the objects of pure concepts concretely, but only in relation to schema, and the pure concepts themselves have no significance outside experience (§§33-4). Only a "scientific" self-knowledge of reason can prevent the understanding from being deceived into thinking it can apply its principles outside experience (\S_{35}). Further discussion (\S_{36} -8) of the idea that human understanding can supply laws to nature (e.g., the inverse square law) precedes an Appendix on the usefulness of the tables of judgments, categories, and principles (§39).

Third Part (§§40–60). Kant cannot point to an actual science of metaphysics and ask how it is possible; his investigation is needed because metaphysics as science is not actual. Pure mathematics and pure natural science had no need of demonstration of their possibility; such a demonstration was undertaken in the service of metaphysics. The impulse in human beings toward metaphysics is actual; Kant will both explain how that impulse is possible and assess the boundary of metaphysical cognition. §40. Metaphysics is concerned with the concepts whose objects are never given in experience, and also with the absolute totality of all possible experience itself; both are *ideas* of reason that transcend any possible experience. These ideas produce an illusion that reason can cognize objects through them. §§41–5. Kant emphasizes the importance of the

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