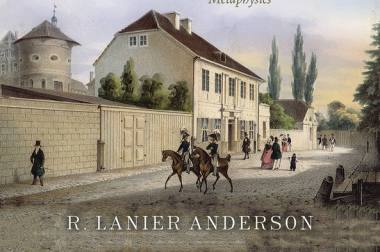


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THE POVERTY OF CONCEPTUAL TRUTH

*Kant's Analytic/
Synthetic Distinction
and the Limits of
Metaphysics*



R. LANIER ANDERSON

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*For Alexander, Gary, and Paul
who made this book possible*

Preface and Acknowledgments

This book is based on a simple idea. Kant's distinction between analytic and synthetic judgments underwrites a powerful argument against the entire metaphysical program of his Leibnizian–Wolffian predecessors—an argument from fundamental limits on its expressive power. Metaphysics in that pre–Kantian tradition had promised to reveal the deep rational structure of the world by developing a systematic philosophy within which every truth could be represented as a conceptual one, flowing from a logically perspicuous relation of “containment” among its constituent concepts; that is, all truths in the system would be “analytic,” *sensu* Kant. Kant's distinction shows that some judgments do not turn on such containment relations, but it also has larger ambitions. It is supposed to imply that far-reaching and scientifically indispensable parts of our knowledge of the world (including mathematics, the foundations of natural science, all knowledge from experience, and even the central principles of metaphysics itself) are *essentially* synthetic, and could never be restated in analytic form. Were Kant to establish that result, the metaphysics of his target predecessors would be doomed, because a great deal of knowledge crucial to any adequate systematic theory of the world could not even be *expressed* in the idiom to which it restricts itself (and which was the basis of its claim to provide a transparently rational account of things). Traditional metaphysics founders on the expressive poverty of conceptual truth.

While the basic idea of the book is simple, its elaboration proved not to be so. The analytic/synthetic distinction was controversial when Kant introduced it, and remains so today. It was therefore already challenging just to identify a defensibly clear logical basis for the distinction—one plausibly rooted in Kant's own understanding of the key notions, and also suitable to support the argument from expressive power. Using that distinction to establish the distinctive Kantian claim that there is irreducibly synthetic knowledge in mathematics and metaphysics raised problems of its own, as did the effort to show that Kant's famous critique of traditional metaphysics really was based on these ideas. Kant's actual path towards the discovery of the distinction through his pre-critical period and the long “silent decade” of work on the *Critique* complicated the mix by revealing unexpected complexity within his ideas about analytic judgment. As a result, my work on these problems covered many years, and along the way I incurred numerous and significant intellectual debts.

The earliest ideas for this book came out of work supported by a generous leave at the Stanford Humanities Center in 2000–1, which afforded me time to begin a large-scale project—one needs a lot of patience to read one's way through Wolff! I am grateful to the Center not only for the time and space for work, but also for the intellectual companionship; Wolfgang Welsch took the time to help me out with

Wolff, and I got valuable feedback that year about this and other projects from my colleague Tom Wasow, as well as from Arnold Eisen, Nicholas Jenkins, and Seth Lerer.

My colleagues in the Stanford Philosophy Department provided a uniquely valuable intellectual home for the work on this book. Solomon Feferman offered crucial encouragement for me to branch out into Kant's philosophy of mathematics in the first place, and he and Grigori Mints invited me for a talk at Stanford's Logic Lunch, where I presented my first thoughts about Kant's philosophy of geometry and got some useful pointers from Patrick Suppes. Early versions of my ideas on Kant's theory of concepts were tried out in a reading group, where I enjoyed helpful interactions with Laura Maguire, John Perry, and Ken Taylor, and my great friend (and Philosophy and Literature co-conspirator) Joshua Landy. Perry led an active work-in-progress seminar for junior faculty, where I presented my initial views on concept hierarchies and the syntheticity of arithmetic; thanks to Nadeem Hussain, Agnieszka Jaworska, Krista Lawlor, Tamar Schapiro, and Michael Strevens for feedback in that group. David Hills and Ken Taylor later provided invaluable comments on that paper and its companion piece; Alexis Burgess and Graciela de Pierris did the same service for late drafts of Part IV and the Epilogue, respectively. I also profited from co-teaching Kant at Stanford with Ken Taylor and with Allen Wood.

Over the years, the Kant group here has attracted a long line of outstanding students, postdocs, and visitors from whom I have learned a great deal, including especially the several generations of students in my Kant seminars. From those classes and their spillover conversations, ideas from Ralf Bader, Rachel Cristy, Tal Glezer, Ludmila Guenova, Samuel Kahn, Eli Lichtenstein, Huaping Lu-Adler, Meica Magnani, Anne Pollok, Konstantin Pollok, Greg Taylor, Paul Tulipana, Jessica Williams, Johanna Wolff, Audrey Yap, and Kritika Yegnashankaran stand out in my memory, and many of their suggestions made their way into the book. In addition to these stimulating students and colleagues, I owe the Department a large debt for its general atmosphere of incisive, but genuinely supportive, intellectual pressure, which made me a much better philosopher than I was when I arrived; the steady diet of interactions with colleagues like those mentioned above (but also Chris Bobonich, Michael Bratman, Peter Godfrey-Smith, Dagfinn Føllesdal, Helen Longino, Debra Satz, and others) pushed me to reach for deeper philosophical results, and helped me to see what it would take to arrive at them.

Most of all, I owe a great debt to my senior colleagues in the Department's Kant group, Michael Friedman and Allen Wood. They built a program in Kant studies at Stanford with a climate of unparalleled seriousness and richness. They also believed in this project, and provided the mentorship and support that helped me see it through to completion. I am deeply grateful to both of them for the broad environment that made this work possible. I incurred more specific debts to each of them, in addition. Allen carefully read large chunks of the manuscript at several stages, providing his *legendarily* swift and detailed commentary on each iteration. His feedback shaped my ideas about the historical framing of my question in the book's Introduction, and the

division of the work into four large parts resulted from our interactions over his reading of a late draft of the whole. Michael has influenced my views on Kant's philosophy of mathematics and his theory of concept formation more than anyone else, and he provided terrifically useful commentary on a late draft of Part III, as well as many telling comments on (very) many earlier versions of that material.

This project required me to venture into areas of the history and philosophy of logic and mathematics (as well as Leibnizian metaphysics) where I had not previously expected to lay my chips. A wide variety of scholars generously helped me get up to speed and see the shape of the questions I was dimly pursuing. In addition to Feferman and Friedman here at Stanford, I benefitted especially from conversations with Lisa Shabel and Daniel Sutherland, whose own work inspired me, and whose repeated close attention to mine was enormously helpful. Sutherland also provided detailed comments on the last drafts of Parts II and III, and we had fruitful exchanges about several intriguing comments from the book's referees. In addition, I have had valuable conversations over the years with Emily Carson, Richard Creath, Jeremy Heis, Andrew Janiak, Paolo Mancosu, Wayne Martin, Stephen Menn, Robert Pippin, Alan Richardson, Donald Rutherford, Clinton Tolley, Eric Watkins, and Richard Zach, as well as Katherine Dunlop and Ian Proops, each of whom provided detailed comments on my late drafts and generously shared their own unpublished work.

The first person to whom I ever sent any of this material was Alan Richardson, who replied immediately to a massive piece (then masquerading as the initial chapter of a first *Critique* commentary) with the recommendation that I rein it in—"Lanier," he wrote back, "short books are *read*." While I miserably failed to live up to his intended advice, the eventual book was decisively shaped by its implications, which convinced me to separate this treatment of Kant's views on analyticity from my interpretation of his larger arguments in the "Transcendental Analytic." I also hope that readers will benefit from Alan's defense of their interests, which acted (together with the demanding standards of Joshua Landy) as a conscience in my head and ear demanding greater clarity in the writing to compensate for the level of detail I thought necessary. I received similarly sound, insightful advice on the basic ideas and written form of the work from Elijah Millgram, and from Alison Simmons, particularly on the occasion of a presentation to the New England Early Modern Colloquium. At a presentation to UC Berkeley's working group in the History and Philosophy of Logic, Mathematics, and Science, John MacFarlane offered encouraging suggestions that helped convince me that the present book really was worth writing. Years later, Hannah Ginsborg provided very helpful comments on a late draft of the Epilogue. Finally, this book owes an enormous debt to Béatrice Longuenesse. She supported the work in its early stages, saw the project from the inside, and took the time to offer highly detailed and very charitable feedback on all of the early papers that provided the bulk of the material in Part I. From the time of those early exchanges, her generous willingness to engage with me on details of the project has never abated.

Aside from the general conversation and debate that is the lifeblood of philosophy, any book also rests on the active collaboration of many hands for its production. I owe thanks to Peter Momtchiloff at Oxford, whose faith in this project was equalled only by his patience in waiting for me to deliver a manuscript, and who made the process of review and publication remarkably smooth. I benefitted from two incisive anonymous referees of that text, and they will see their concerns heeded at a great many points, even where we continue to disagree. Sara Kerr and Jessica Williams did terrific work on the manuscript as research assistants, reviewing the whole for consistency and completeness, and tracking down many points of detail. Greg Taylor and Paul Tulipana did yeoman's service on the index. I am grateful to several publishers for permission to reuse previously published material: thanks to Walter de Gruyter for "The Wolffian Paradigm and its Discontents" (*Archiv für Geschichte der Philosophie* 87, 2005), parts of which appear in Chapters 2, 3, 4, and 9; thanks to Wiley and Sons for "It Adds Up After All" (*Philosophy and Phenomenological Research* 69, 2004), parts of which appear in Chapters 2, 4, and 9; thanks to Cambridge University Press for "The Introduction to the *Critique*: Framing the Question" (in Paul Guyer, ed., *Cambridge Companion to Kant's Critique of Pure Reason*, 2010), used in Chapter 1; and thanks to the New School's *Graduate Faculty Philosophy Journal* for "Containment Analyticity and Kant's Problem of Synthetic Judgment" (*GFPJ* 25, 2004), also used in Chapter 1.

I have registered some of my debts for help in the writing of this book, but over such a long time I have naturally also incurred equally important, and deeper, debts for help in support of the writer. My parents, Nancy and Lanier Anderson, gave me the loving care to develop as a person; they released me to pursue philosophy far from hearth and home, and were a rock of moral support through an extended search for professional stability. My brothers and their families have brought unending joy into my life, and like my parents, they were patient though a long silence in the final months of work on the book. I have also lucked into a number of extraordinary friendships during the course of this project, on which I have relied heavily for good sense, perspective, and cheer. Sol and Anita Feferman made us feel at home in California, and Lori Gruen, Peter Godfrey-Smith, and Blakey Vermeule made my Stanford life a place of personal, not just intellectual and professional, attachment. Bernard Reginster helped me keep the rest of my philosophical life from drowning under the Kant weight; Alison Simmons has been an ever-present sounding board full of thoughtful sympathy, real wisdom, and true friendship; Luke Menand, Jane Sheldon, and Angela Sebastiana generously brought so much happiness; my great friend Charles Thomas blessed me with the chance to help him get well married out of our home during the window of legal opportunity; at (too long) intervals, Patricia von Münchow and Pascal Beucler offered refuge abroad, and more recently Anna Aula and Geoff Davis took time to pull us away from work obsession (for there are so many things to obsess about!). Josh Landy has been, for so long and in too many ways to recount here, just the best friend anyone could want. Most of all, Katherine Preston has been the center of happiness for me throughout these years. This has been a long project, and it has lasted through a

number of intervening successes and setbacks for both of us. Katherine has seen me through more, taught me more, and made more of my days than I could have imagined when it all started. My deepest thanks are to her.

Finally, I could not have written this book without the guidance and aid of my graduate teachers, who took the unformed and hopelessly naïve mind I brought to Penn, and made it think like a philosopher. Thomas Ricketts patiently brought me round to see the importance of the topics and broad approach explored in this book, and he intervened over the years with tips to keep me on track, including exchanges during a visit to Pittsburgh where I presented ideas from Part II. Rolf-Peter Horstmann offered crucial encouragement during challenging years as I entered the job market. But my largest debts are to my graduate committee, Paul Guyer, Gary Hatfield, and Alexander Nehamas, who did the heavy lifting needed to train me. They provided me with exemplars of scholarly care and precision, constant pressure to think more deeply, and a compelling vision of the intellectual value of practicing the history of philosophy. More particularly, Paul taught me how to think about Kant's arguments and his development, and he showed me the grandeur of the overarching Kantian system. Gary hammered away to form in me a genuinely critical intelligence, initially opened the terrain of this book for me by inviting me into a reading group on Euclid's *Elements*, taught me how to detect the shape of a philosophical project and assess its historical context—and did all of this while remaining a true friend. Alexander ever reminded me, by his words and even more by his example, back then and now still, what philosophy is really for, and why I went into it in the first place. I venture to guess that this is not the book that any of them quite expected from me, but if they look closely they will see the indelible marks of their influence throughout. They turned me into a philosopher, and I am forever grateful. This book is dedicated to them.

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System of Abbreviations and Short Titles

Works by Kant

A/B	<i>Critique of Pure Reason</i>
CPJ	<i>Critique of the Power of Judgment</i>
DS	<i>Dreams of a Spirit-Seer Elucidated by Dreams of Metaphysics</i>
FS	<i>The False Subtlety of the Four Syllogistic Figures</i>
Groundwork	<i>Groundwork of the Metaphysics of Morals</i>
I (Inquiry)	<i>Inquiry Concerning the Distinctness of the Principles of Natural Theology and Morality, being an Answer to the Question proposed for Consideration by the Berlin Royal Academy for the year 1763</i>
ID (Inaugural Dissertation)	<i>On the Form and Principles of the Sensible and the Intelligible World</i>
Logic	<i>Immanuel Kant's Logic: a Manual for Lectures</i> , ed. G. B. Jäsche
MFNS	<i>Metaphysical Foundations of Natural Science</i>
NE (Nova Dilucidatio)	<i>A New Elucidation of the First Principles of Metaphysical Cognition</i>
NM	<i>Attempt to Introduce the Concept of Negative Magnitudes into Philosophy</i>
OD	<i>On a Discovery according to which any new Critique of Pure Reason has been made superfluous by an Earlier One</i>
OPA	<i>The Only Possible Argument in Support of a Demonstration of the Existence of God</i>
Physical Monadology	<i>The Employment in Natural Philosophy of Metaphysics combined with Geometry, of which sample 1 contains the Physical Monadology</i>
Progress	<i>What Real Progress has Metaphysics made in Germany since the Time of Leibniz and Wolff?</i>
ProI.	<i>Prolegomena to Any Future Metaphysics that Will be Able to Come Forward as a Science</i>
R	<i>Reflexionen</i> (Kant's notes, as numbered in Ak.)

Works by Leibniz

AG	<i>Philosophical Essays</i> , ed. Ariew and Garber
G	<i>Philosophische Schriften</i> , 7 vols., ed. Gerhardt
L	<i>Philosophical Papers and Letters</i> , ed. Loemker
LA	<i>The Leibniz-Arnault Correspondence</i>
NE	<i>New Essays on Human Understanding</i>
P	<i>Logical Papers</i> , ed. Parkinson.

Theodicy *Theodicy: Essays on the Goodness of God, the Freedom of Man, and the Origin of Evil*

Works by Wolff

ADM (Anmerkungen) *Der Vernünftigen Gedancken von Gott, der Welt under der Seele des Menschen, auch allen Dingen überhaupt, Anderer Theil, bestehend in ausführlichen Anmerkungen* (= Wolff 1983b [1740])

DL (Deutsche Logik) *Vernünfftige Gedanken von den Kräften des menschlichen Verstandes und ihrem richtigen Gebrauche in Erkenntnis der Wahrheit* (= Wolff 1965 [1754])

DM (Deutsche Metaphysik) *Vernünfftige Gedancken von Gott, der Welt und der Seele des Menschen, auch allen Dingen Überhaupt* (= Wolff 1983 [1751])

LL (Latin Logic) *Philosophia Rationales sive Logica* (= Wolff 1983a [1740])

Preliminary Discourse *Preliminary Discourse on Philosophy in General* (= Wolff 1963 [1728])

Works by Descartes

Meditations *Meditations on First Philosophy*

Rules *Rules for the Direction of the Mind*

Work by Hume

Enquiry *An Enquiry Concerning Human Understanding*

Work by Locke

Essay *An Essay Concerning Human Understanding*

Work by Aristotle

Pr. Anal. *Prior Analytics*

Introduction

1

Containment Analyticity and Kant's Problem of Synthetic Judgment

1.1 The Problem of Synthetic Judgment

Many philosophical advances provide solutions to recognized difficulties.¹ Some arrive instead in the shape of new problems. Such is the Kantian problem of synthetic judgment. In my view, Kant's problem must be understood in the light of prominent currents in his contemporary philosophy, notably the metaphysical commitments of Christian Wolff and his German followers. The Wolffians made extensive claims on behalf of conceptual truth; they promised a completely adequate system of metaphysics founded on the principle of contradiction alone, which would be articulated through logical relations of "containment" among its concepts. Already from the time of his early philosophical efforts of the 1750s and 1760s, Kant was dissatisfied with their approach, but it was only in the *Critique of Pure Reason* (1781/1787) that his criticisms assumed mature form.

Kant's discovery of a distinction between analytic and synthetic judgments was a crucial part of this development. Analyticities are exactly those conceptual truths in terms of which Wolff's system was supposed to be formulated, so an analytic/synthetic *distinction* gave Kant the resources for a powerful argument against Wolffian metaphysics—an argument from the limits of its expressive power. A Wolffian system can express only the analytic truths, besides which (Kant insists) there is a vast domain of essentially synthetic judgments that are indispensable for any adequate scientific system. Since it cannot even *represent* those irreducibly synthetic truths, the German rationalist metaphysical program is doomed from the start by the expressive poverty of conceptual truth.

This book explores the logical and philosophical motivations that led Kant to draw a fundamental distinction between analytic and synthetic judgments. While it undermines key elements of the Wolffian paradigm, numerous puzzles confront Kant's distinction itself. The investigation and solution of these puzzles will suggest interesting

¹ The ideas in this chapter benefitted greatly from exchanges with Allen Wood, as well as suggestions by Alex Angelides, Paul Guyer, Gary Hatfield, and Béatrice Longuenesse. Katherine Dunlop and Ian Proops offered helpful comments on a late draft.

morals bearing on systematic metaphysics, and on the philosophies of logic and mathematics.

Most immediately, Kant's negative result about the prospects for a purely conceptual metaphysics poses a *new philosophical question*: if our important cognitive achievements cannot be expressed in the analytic judgments recognized by the Wolffians, then how *are* they expressed? The difficulty is especially stark within metaphysics. As Kant and the Wolffians conceived it, that science seeks strictly a priori results, so it would be illegitimate to appeal to experience for assistance. At the same time (*per hypothesis*), the synthetic judgments we seek outstrip all merely logical relations among concepts. Thus, the resources of logic and of experience are equally deficient, and there is a serious puzzle about how synthetic a priori judgments are possible at all.

Kant was keen to offer a solution to this problem. Indeed, in the *Critique* "Introduction" he represents it as the organizing task of the entire critical philosophy:²

The real problem of pure reason is now contained in the question: "**How are synthetic judgments a priori possible?**"

That metaphysics has until now remained in such a vacillating state of uncertainty and contradictions is to be ascribed solely to the cause that no one has previously thought of this problem, and perhaps even of the distinction between **analytic** and **synthetic** judgments. On the solution of this problem . . . metaphysics now stands or falls. [B 19]

Kant's proposed solution, which rests on the detailed theory of cognitive synthesis deployed in the central arguments of the *Critique*, is as intricate as it is philosophically rich. By means of that theory, Kant claims to establish the validity of a priori categories (for example, substance, cause, etc.), and then ultimately to develop a new system of metaphysics, placing the field at last on the secure scientific footing which the Wolffians had sought, but failed to provide.³ But while the details of Kant's system

² The quoted passage appears only in the second (=B) edition, and Kant did emphasize the importance of this basic problem in increasingly dramatic terms as he became aware of responses to the critical philosophy. But this is mainly a matter of emphasis; the centrality of the problem of synthetic judgment in Kant's conception of the critical project is clear (to those who have ears, anyway) from the first publication of the *Critique*. For instance, there are similar remarks about the importance of Kant's question in the first (=A) edition "Introduction":

A certain mystery thus lies hidden here, the elucidation of which alone can make progress in the boundless field of pure cognition of the understanding secure and reliable: namely, to uncover the ground of the possibility of synthetic a priori judgments with appropriate generality, to gain insight into the conditions that make every kind of them possible, and . . . to determine [this entire cognition] completely and adequately for every use in a system. . . . [A 10]

Likewise, in the *Prolegomena* (1783), Kant complained about the unfavorable Garve-Feder review of the *Critique*, writing that it 'did not mention a word about the possibility of synthetic cognition a priori, which was the real problem, on the solution of which the fate of metaphysics wholly rests, and to which my *Critique* (just as here my *Prolegomena*) was entirely directed' (*Prol.*, Ak. 4: 377).

³ Kant was a great admirer of the systematic, and in that respect scientific, character brought to metaphysics by Wolff and his followers (see B xxxv–xxxvi, A 855/B 883; and *Progress*, Ak. 20: 281). He promises that his own results will finally put metaphysics truly onto the "secure course of a science" by means of critique (B vii; see also B vii–xvii, B xxxv–xxxvii, A xii–xiv, A 11–16/B 24–30, and A 841–51/B 869–79).

and the arguments he deploys to defend it are of great philosophical interest, there is an important prior issue which demands attention, viz., clarifying the problem of synthetic judgment itself, which the theory was designed to address. My focus will be on that initial step towards understanding the Kantian program.⁴

Kant's very discovery of the problem was already a major philosophical achievement, with broad implications. The analytic/synthetic distinction undermined fairly widespread contemporary assumptions about the nature of judgment and the proper structure for a metaphysical system. Kant's insight thereby revealed the need for general reform in metaphysics and helped to shape his detailed complaints against particular traditional arguments (for example, for the simplicity and immortality of the soul, the existence of God, etc.).⁵ In addition, Kant's attack on the *expressive power* of conceptual truth raises foundational issues about logic and mathematics, which touch on the grounds for a priori knowledge in general.⁶ The broad domain of inquiry thus opened became central to later philosophy, and analogous questions have guided many fruitful avenues of research in epistemology and the philosophies of language, logic, and mathematics ever since.⁷ Aside from its subsequent influence, the issue of expressive power also cuts to the heart of Kant's own philosophical method. It is crucial, in particular, to his program of subjecting all of philosophy to the ineluctable demand of *critique* (see A xii, B xxxv–vi), which insists (*contra* dogmatism) that no knowledge claim is entitled to serious hearing until we provide general grounds underwriting its

⁴ In that sense, the work of this study is preliminary. (Some thoughts about Kant's wider argumentative strategy are explored in Anderson (2001).) It is worth noting explicitly one consequence of my present focus on the preliminary issue. A significant part of what makes Kant's full positive explanation of the possibility of metaphysical knowledge such a challenging philosophical task is that the explanation has to account for a priori knowledge, and so cannot rely on appeals to experience to go beyond conceptual truth. Kant himself therefore (almost) always frames the central difficulty as the problem of synthetic a priori knowledge. But by contrast, the *preliminary* issue about the expressive power of conceptual truth centers on the claim of irreducible syntheticity itself, regardless of whether the cognitions under investigation are a priori or not. I will therefore often speak of the "problem of synthetic judgment" *simpliciter*, as opposed to the more specific problem of the synthetic a priori central to Kant's full grounding for a scientific metaphysics.

⁵ These detailed criticisms are Kant's subject in the single largest section of the *Critique*, the "Transcendental Dialectic" (A 293–704/B 349–732), which advances arguments designed to undermine the possibility of knowledge in three traditional branches of metaphysics—rational psychology (the a priori doctrine of the soul), rational cosmology (the a priori doctrine of the universe) and rational theology (the a priori doctrine of God). See Part IV.

⁶ Michael Friedman's (1992a, 2000, 2010) groundbreaking work on Kant's philosophy of mathematics has emphasized the central importance of issues about the means by which the explicit representation of mathematical truths is achieved. The power of Friedman's approach indicates the potential significance of questions about expressive power for Kant's theoretical philosophy more generally, and the present study deploys similar ideas to explore the domain of the analytic/synthetic distinction.

⁷ Coffa (1991) offers an influential account of the development of post-Kantian thought about the place of analyticity in philosophy generally, and its importance for the understanding of a priori knowledge in the exact sciences in particular. Coffa casts a more skeptical eye on the value of Kant's own contributions than I will here, but I follow him in emphasizing the philosophical importance of what he calls the "semantic tradition," which takes up the problems of expressive power opened up by Kant's distinction.

possibility—grounds explaining both how such knowledge could be valid, and how, given our cognitive resources, we succeed to represent or express it.

Despite its centrality and intrinsic interest, however, substantial worries surround Kant's analytic/synthetic distinction to this day. There is controversy and confusion about *what sort* of distinction Kant intended to draw and even about his definition of the basic terms. As we shall see, Kant's remarks suggest at least three criteria for separating analytic from synthetic judgments. While he clearly considered them to be equivalent, it is far from obvious that they are so, and it is disputed which of the definitions (if any) ought to be treated as basic. Meanwhile, many skeptical readers have insisted that none of the proposals are sufficiently clear to mark a principled distinction between logically different types of judgment. Others have criticized Kant—or attempted to defend him—by insisting that the distinction is not logical at all, but belongs to some broader epistemological or methodological domain. Much of what follows is devoted to clarifying Kant's distinction, and to identifying and assessing its logical basis given the resources of the traditional logic used by Kant and his contemporaries. Besides elucidating analyticity itself, I will chart the expressive limits that circumscribe the domain of conceptual truth as Kant characterized it. That will involve investigation of the controversial thesis that mathematical truth is synthetic, as well as an account of the distinction's implications for metaphysics. In the end, it will be possible to show how and why systems of philosophy in the Wolffian mold must fail.

So, later chapters will reconstruct and defend Kant's views about analyticity, the logic of concepts, and the nature of synthetic judgments, and then trace the philosophical implications of these ideas. Before plunging into the details, however, it is useful to gain an overview of the central difficulties facing Kant's doctrine on the analytic and the synthetic. After all, the most serious objections to Kant's view take the form of doubts that 'analyticity' has any tolerably clear meaning in the first place. If we do not even know what we are talking about, we are unlikely to make progress on the underlying philosophical issues that Kant's distinction was supposed to address.

As it turns out, a good introduction to the relevant domain comes from Kant himself, who provokes a host of questions in the very passage that placed the analytic/synthetic distinction before his readers for the first time. Some of the difficulties emerging there were certainly unforeseen by Kant; other questions were perhaps advertent on his part, even though they remain implicit in the official discussion. Both types repay careful exploration. Once we have taken a closer look at the issues emerging from analyticity's first appearance on the philosophical stage, we will be in a better position to understand why Kant thinks there is a problem about synthetic judgment and to survey the shape and scope of the work before us in the following chapters.

1.2 Kant's Official Account of Analyticity

In the *Prolegomena to Any Future Metaphysics* (1783), Kant claims that the distinction between analytic and synthetic judgments "is indispensable with regard to the critique

of human understanding, and therefore deserves to be *classical* in it" (*Prol.*, Ak. 4: 270). The distinction's centrality is apparent already in the *Critique*, where Kant makes it a primary topic in the "Introduction" to the work. His opening statement of the relevant ideas is worth quoting at length:

In all judgments in which the relation of a subject to the predicate is thought (if I consider only affirmative judgments, since the application to negative ones is easy) this relation is possible in two different ways. Either the predicate *B* belongs to the subject *A* as something that is (covertly) contained in this concept *A*; or *B* lies entirely outside the concept *A*, though to be sure it stands in connection with it. In the first case I call the judgment **analytic**, in the second **synthetic**. Analytic judgments are thus those in which the connection of the predicate is thought through identity, but those in which this connection is thought without identity are to be called synthetic judgments. One could also call the former **judgments of clarification**, and the latter **judgments of amplification**, since through the predicate the former do not add anything to the concept of the subject, but only break it up by means of analysis into its component concepts, which were already thought in it (though confusedly); while the latter on the contrary add to the concept of the subject a predicate that was not thought in it at all, and could not have been extracted from it through any analysis. [A 6–7/B 10]

Kant's initial sketch is philosophically rich. Not only does he introduce and define analyticity—and thereby suggest claims about the logical nature of concepts and judgments—but further, his treatment alludes to key rationalist ideas like the thought that the analysis of concepts could be an important philosophical method, or that the principles of identity and contradiction might serve as basic principles of a metaphysical system. At the same time, the presentation raises a number of problems. As a first pass through the terrain it opens, this section explores three issues: 1) whether the force of Kant's discussion is merely stipulative (section 1.2.1); 2) what definition(s) of analyticity the passage actually offers (section 1.2.2); and 3) which definition (if any) Kant himself counted as the fundamental one (section 1.2.3).

1.2.1 *How controversial is Kant's distinction?*

To present-day ears, Kant's discussion has the ring of stipulative definition, telling us how he will use the terms 'analytic' and 'synthetic' (as applied to judgments⁸). On that hearing, the quoted passage seems straightforward: it simply defines the new technical

⁸ The mature Kant uses the words 'analytic' and 'synthetic' to mark two different distinctions, one applied to arguments or methods of proof, and the other to judgments. My central concern will be the analytic/synthetic distinction applied to *judgments*, which is (largely) new with Kant (see B 19; and section 1.4). As we will see in section 1.3, this usage is related to an older one, typical in mathematical contexts, which distinguishes between two proof strategies: analysis proves a proposition by showing that all its consequences are true (thus, from the bottom up), whereas synthetic argument proceeds from more general or basic premises (from the top down). Kant's distinction between analytic and synthetic *methods* of presenting philosophical argument is a direct echo of the mathematical usage, which Hintikka (1966; 1967, 363–4n) calls a "directional" sense of the distinction. The analytic/synthetic distinction as applied to *judgments* is only indirectly related to the older mathematical usage (see section 1.3). Thanks to Béatrice Longuenesse and Patrick Suppes for discussion.

terms by appeal to the notion of “containment” between concepts. Kant himself sometimes suggests that his treatment should be granted such stipulative force. For example, in reply to Eberhard, Kant impatiently complains that his critic tries

to demonstrate that I *should have defined* the synthetic judgment . . . , in distinction from the analytic judgment, *other* than I have done. The talk here [in Eberhard 1789] is not at all about my solution to the question of how such judgments are possible, but only what I understand thereby, and that, if I accept one kind of predicate in them (p. 319), my concept is too wide, but if I understand another kind (p. 320), it is too narrow. It is, however, clear that if a concept first proceeds from a definition, it is impossible for it to be too narrow or too wide; for it then signifies nothing more or less than what the definition asserts of it. [OD, Ak. 8: 232]

Kant’s protestations are somewhat disingenuous, however. Of course, a philosopher must be allowed leeway to define technical terms as s/he sees fit. But the first point to make about the long passage at A 6–7/B 10–11 is that in the immediate dialectical context Kant’s remarks must have carried the force of substantive claims, not mere stipulation. Consider the seemingly innocuous first sentence, which asserts that the relation between concepts in a judgment is “possible in two different ways”—viz., containment (for analytic judgments), and connection without containment (for synthetic ones). Despite Kant’s nonchalant tone, the blunt claim to identify two different relations would have been striking to his audience, because in contemporary debates it was a live option—indeed, it was arguably the *standard view* among his intended targets—to trace *all true propositions whatsoever* to containment among terms.

Unlike his new use of the term ‘analytic,’ then, talk of the subject’s containing the predicate would have been perfectly familiar to Kant’s readers—only not as the characterization of some *special subclass* of judgments. Rather, it pretended to be the key to a general definition of true judgment as such, due to Leibniz (and, Leibniz thinks, even to Aristotle).⁹ Leibniz wrote, for example, that

Therefore, the predicate or consequent is *always* in the subject or antecedent, and the nature of truth in general or the connection between the terms of a statement, consists in this very thing, as Aristotle also observed. The connection and inclusion of the predicate in the subject is explicit in identities, but in *all* other propositions it is implicit and must be shown through the analysis of notions. . . . Moreover, this is true for *every* affirmative truth, universal or singular, necessary or

⁹ It should be noted right away that this containment-based theory of truth applies in the first instance only to affirmative judgments, and the extension to negative ones (which Kant parenthetically mentions as “easy” in his own treatment; A 6/B 10) must also appeal to a related notion of concept *exclusion* (see Proops 2005). Leibniz himself, however, tends to treat this as a single, unified “predicate in subject” theory of true judgment, and he remained confident that the simple underlying idea stated for affirmative subject–predicate judgments could be naturally extended to all other judgments (see AG 11). He advocated this doctrine in numerous places, some of which were available in the eighteenth century and known to Kant. For other statements, see, e.g., “On the General Characteristic” (L 226); “Universal Synthesis and Analysis” (L 231–2); “Samples of the Numerical Characteristic” (AG 11–12); “Discourse on Metaphysics,” secs 8 and 13 (AG 41, 44–6); *New Essays* (NE 81–3, 397, 411, 485–6).

contingent, and in both an intrinsic or extrinsic denomination. ["Primary Truths" (AG 31); my emphasis]

For Leibniz, it follows from the logical nature of the proposition alone, as a "connection between terms," that all judgments are analytic (to use Kant's language). Christian Wolff's *Latin Logic* advances a similar doctrine, arguing that "Whoever perceives how the predicate is determined by what is contained in the notion of the subject knows the truth of the judgment" (Wolff 1983a [1740] *LL*, 394; § 516), because "Truth [according to its "real definition"] is the determinability of the predicate by the notion of the subject" (Wolff 1983a [1740] *LL*, 392–3; § 513), and is therefore "intrinsic to the proposition" (Wolff 1983a [1740] *LL*, 397; § 523).¹⁰

As Leibniz notes, at least some judgments are quite obviously containment truths—he calls these "identities." The distinctive move of German rationalists like Leibniz and Wolff was to generalize from those clear cases to a containment theory of truth as such, under which the same sort of containment among terms that is "explicit" in affirmative identical judgments also serves as the "implicit" basis of truth in all other cases (AG 31). Implicit containment (or exclusion) was to be revealed by the sort of "analysis of notions" (AG 31) that Leibniz had already emphasized as a crucial philosophical method in his influential paper "Meditations on Knowledge, Truth, and Ideas" (AG 23–7), and this role accounts both for the general importance of analysis within German rationalism and for Kant's choice of the term 'analytic' to describe such containment truths.¹¹

One underlying line of thought supporting the striking Leibnizian generalization from the straightforward case of identities to all judgments whatsoever seems to be this. A proposition (or judgment) is a relation between two concepts; But the logical nature of a concept is to have a content, i.e., to *contain* other concepts; So, the obvious relation to posit as the logical basis of the proposition is containment—one concept contains the other; And thus, the truth of a proposition turns on containment relations among its concepts. So all judgments are analytic, and indeed, "the nature of truth in general or the connection between the terms of a statement *consists in this very thing*" (AG 31; my emphasis).¹²

¹⁰ As we will see in Chapter 2, one concept "determines" another when it is a lower concept falling under, and thereby specifying, it. Within the Wolffian tradition, it was standard to treat such determination in terms of concept containment, as suggested by the quoted passage from § 516 of the *Latin Logic* (*LL*). Longuenesse (1998, 95–7) nicely shows the logical basis of Wolff's conception of truth and connects it to the important Wolffian notion of the "condition" of a judgment, discussed in Chapters 2 and 4. (I am indebted to Longuenesse for pointing me to these passages in the *Latin Logic*.)

¹¹ Leibniz's "Meditations" (AG 23–7) was published in the *Acta Eruditorum* in 1684, and it deploys a systematic theory of the "analysis of notions" to give concrete logical shape to the commonly invoked distinctions between clear and obscure ideas and between distinct and confused ideas. Leibniz's account rests on the thought that concepts can be analyzed or "resolved" into (more) primitive conceptual constituents—a view which was standard by Kant's time. See n. 36.

¹² A qualification is needed, though, to the underlying idea of this reconstruction. However useful for understanding Leibniz's *general motivation*, the thought that the logical nature of a concept is to contain other concepts is too baldly stated to capture his considered view. Even though *most* notions acquire their content

Leibniz's predicate-in-subject containment principle can seem extravagant to post-Kantian philosophers, but that reaction just demonstrates how deeply subsequent philosophical common sense has been shaped by Kant's insistence on an analytic/synthetic *distinction*, which entails that only some judgments are conceptual truths. Many pre-Kantian modern philosophers, by contrast, found the Leibnizian view natural. Arnauld is a noteworthy case. Recall that the Leibniz–Arnauld correspondence took off because Arnauld rejected the apparent necessitarian consequences of Proposition 13 of Leibniz's *Discourse on Metaphysics*, which claimed that the individual concept of a person *contains* everything true of that person (see AG 44–6). The ensuing debate ranged widely across metaphysical topics, which I leave aside here in favor of one detail relevant to the predicate-in-subject doctrine. Through two rounds of correspondence, Arnauld remained largely unmoved by Leibniz's arguments, but in his third letter, he pronounces himself satisfied on the original point of contention. The argument that “especially struck” him, Arnauld says, is that Proposition 13 is a consequence of the general containment definition of judgment, which he takes to be straightforward and uncontroversial (G 64). Arnauld's acceptance of the Leibnizian definition is telling, since he authored one of the most influential early modern logic texts (the Port Royal *Logic*; Arnauld and Nicole 1996 [1683]).¹³

More salient for our purposes is the prevailing wisdom among the eighteenth-century scholastic German rationalists who were Kant's main targets. There are some interpretive subtleties in this area, but we have already seen clear indications of substantially the same doctrine in Wolff, and I will show in Chapters 2 and 3 that Wolff, Baumgarten, and Meier all commit themselves to versions of the predicate-in-subject principle, and thus to the claim that all judgments are analytic, *sensu* Kant. Kant, moreover, was fully aware of this, and explicitly attributed the containment principle

from the “marks,” or partial notions into which they can be resolved, Leibniz does assume that there must be elementary concepts, or “primitive possibilities” (AG 26), in which analysis terminates, and it is natural to conclude that *they* must carry primitive content, which cannot be explained by appeal to constituent marks but is available to be communicated up to the more complex notions built out of them. (Famously, Leibniz hoped to represent such primitive ideas through the elementary symbols of his sought-for universal characteristic, conceived as an “alphabet of human thoughts” (AG 6).)

The matter is complicated, however, and not only because all of Leibniz's efforts to represent the primitive concepts through a characteristic ended in failure. For consider further, it is also essential to Leibniz's containment theory of truth that all conceptual *incompatibility* rests on explicit contradiction between some mark and its negation. That is, no affirmative mark could be primitively opposed to any other (a key assumption in Leibniz's standard arguments to assure the possibility, and thence the reality, of the divine essence; see, e.g., *Monadology*, 45; AG 218). This appears to have the consequence, as Robert Adams (1994, 65–7) has noted, that the containment theory of truth is radically “anti-semantical,” in that truths depend *entirely* on formal containment and explicit contradiction relations among the conceptual elements, without regard to any primitive content they might carry. Thus, “the actual world is perfectly symmetrical with respect to simple concepts” (Adams 1994, 67), such that any two simple concepts F and G could be switched one for the other throughout the conceptual characterization of the world *salva veritate*. In that sense, all the content that *makes a difference* to concepts and the truths they contribute to turns out to be traceable after all to what concepts they contain. Thanks to Ian Proops for pressure on these points.

¹³ See Adams (1994, 70–1) for further discussion of some dialectical pressures that favor Leibniz's version of the containment theory over Arnauld's own formulations in the Port Royal *Logic*.

to his “dogmatic” predecessors. It was due to that commitment, Kant suggests in the *Prolegomena*, that the

dogmatic philosophers . . . neglected this [analytic/synthetic] division, which appears to come forward of itself, and, like the famous *Wolff*, or the acute *Baumgarten* following in his footsteps, could try to find the proof of the principle of sufficient reason, which is obviously synthetic, in the principle of contradiction. [*Prol.*, Ak. 4: 270]

Finally, it should not go without notice that *Kant himself*, in his “pre-critical” works, adopted a predicate-in-subject account of judgment.¹⁴ In this sense, the analytic/synthetic distinction, which later seemed to him to “come forward of itself” (*Prol.*, Ak. 4: 270), was in fact a hard won achievement, and one that helps define the “critical” character of his mature position (see Part II, A Difficult Birth: The Emergence of Kant’s Analytic/Synthetic Distinction).

Thus, within the dialectical context that governed Kant’s conception of the *Critique*, its opening claim that the relation between subject and predicate “is possible in *two different ways*” (A 6/B 10; my emphasis) was no mere stipulation, but a controversial thesis. With it, Kant already introduces the critical rejection of German rationalist metaphysics, and in particular, of the Wolffian claim that the principle of contradiction was a fully adequate basis for the system of philosophy. These stakes become increasingly apparent as Kant’s discussion proceeds. Once he has sketched the two kinds of judgment, he organizes the ensuing central stretch of the *Critique*’s “Introduction” (in B) around a series of emphasized topic sentences. The force of these theses—which take on an almost Lutheran character as they pile up—is to suggest that essentially all important cognition falls on the synthetic side. They claim, in turn, that

- 1) “Judgments of experience, as such, are all synthetic” (A 7–8/B 11–12);
- 2) “Mathematical judgments are all synthetic” (B 14, see B 14–17);
- 3) “Natural science (*Physica*) contains within itself synthetic *a priori* judgments as principles” (B 17–18); and finally,
- 4) “In metaphysics . . . synthetic *a priori* cognitions are supposed to be contained,” so that the claims of metaphysics, if sustained, must likewise count as synthetic (B 18; cf. A 10).

¹⁴ See *FS* (Ak. 2: 60–1) for an especially clear statement, but the view is also present in *NE*, *OPA*, *NM*, *I*, and *ID*, as discussed in Part II. In these works, Kant divides judgments into those in which the identity (or contradiction) between subject and predicate is cognized immediately, and those where the cognition of identity (or contradiction) is indirect and so has to be mediated by an inference (*FS*; Ak. 2: 60–1). That is, in all true judgments the subject contains the predicate; the question is only whether such containment is immediately apparent, or indirect and in need of analysis. In an important sense, it is the acceptance of the predicate-in-subject principle that makes these works *pre-critical*. The *Critique*’s central problem of synthetic judgment could not come into focus as long as Kant accepted the predicate-in-subject principle, because it entails that all judgments are analytic. If there are no irreducibly synthetic judgments, then there can obviously be no problem about how they are possible.

That is, although the Leibnizian predicate-in-subject principle is not completely false (some judgments do conform to it), it *is* false to almost all knowledge of philosophical interest. We therefore need a fundamentally different view of the relation between concepts in judgment—one capable of addressing the suddenly pressing question of how our copious synthetic judgments are possible at all.

1.2.2 *Three definitions of analyticity*

But what, in detail, would the essential syntheticity of a judgment consist in? Let us return to Kant's introduction of analyticity in the quoted passage from the *Critique* (A 6–7/B 10–11). Initial appearances suggest that the passage simply defines analyticity in terms of concept containment. We have now seen that Kant's agenda was not *merely* definitional, but surely his intentions *included* definition, and it is equally clear (or so it seems), that he wanted to define analyticity as the containment of predicate in subject: "Either the predicate *B* belongs to the subject *A* as something that is (covertly) contained in this concept *A*; or *B* lies entirely outside the concept *A* In the first case I call the judgment **analytic**, in the second **synthetic**" (A 6–7/B 10).

This official definition of analyticity, however, is less simple than a first reading suggests. At least since the time of Kant's controversy with Eberhard, readers have complained that the crucial notion of "containment" is fundamentally unclear, and so cannot be used to mark a genuine logical distinction. Eberhard himself (1789, 312–32, esp. 321–5) charged that Kant's talk of containment conflates the importantly different conceptual relations made possible by the distinct types of universals identified in the traditional logic. (For example, a target species concept may be connected in different ways 1) to its genus; 2) to its essence, as defined by proximal genus and specific differentia; 3) to its propria, or attributes; 4) to its accidents, and so on—see Chapter 4 for discussion.) Perhaps more famously, Eberhard's colleague J. G. Maaß (1789) complained that claims about containment would have to rest on potentially idiosyncratic psychological facts about what one or another person actually "thinks in," or associates with, a given concept. By the late twentieth century, such criticisms had become very widespread, reflecting the influence of similar ideas made prominent by Quine's (1960, 1961 [1953]) skeptical attack against analyticity. In Part I, I will address these criticisms in light of containment's role in the traditional logic deployed by Kant and his predecessors. For now, though, I want to note further puzzles arising from Kant's definition of analyticity, aside from worries about the very notion of containment. For in the same passage that introduces the official containment definition, Kant also offers two other criteria separating analytic from synthetic judgments, and it is not immediately apparent how the three ideas are supposed to fit together.

The second idea is that analytic judgments are "thought through identity," and synthetic judgments are not (A 7/B 10), indicating that analyticity could be defined via the principle of identity—or perhaps better, through the interconnected principles of identity and contradiction, following the *Critique*'s later suggestion that the principle of

contradiction is the “supreme principle of all analytic judgments” (A 150/B 189).¹⁵ According to this definition, analyticities would be propositions that follow from the principles of identity and contradiction alone. The *Prolegomena*'s criticism of Wolff's derivation of the principle of sufficient reason (*Prol.*, Ak. 4: 270) provides a clear instance of Kant's reliance on this second definition: Wolff's purported demonstration wrongly treated the principle of sufficient reason as analytic precisely by claiming to derive it from the principle of contradiction—thus, for Kant, such derivability serves as a sufficient criterion of analyticity. Many recent philosophers have insisted that defining analyticity through the principle of contradiction is superior to the containment definition, and ought to be recognized as the true Kantian account. It avoids appeal to the troubling notion of containment, and derivability from the principle of contradiction would seem a reasonable Kantian proxy for the present-day notion of logical truth, which is plausibly analytic. Furthermore, some philosophers (for example, Frege 1980 [1884], 100 (§ 88) and Couturat 1904 early on; and in recent times, Shin 1997, Van Cleve 1999, and Hanna 2001) have worried that the containment definition would be too narrow to capture all the analyticities. For example, it seems to be restricted to propositions in categorical (subject–predicate) form.¹⁶

Still, the definition via the principle of contradiction is not free of difficulties, including ones that stem from its close tie to logical truth. After all, the notion of analyticity pretends to capture not just strictly *formal* logical truths, which are, in

¹⁵ Careful readers of Kant's earlier work would have noticed that the *Critique* marks a definite change of view, not only on the fruitfulness, but also on the nature of this principle, compared to the treatment in the early *Nova Dilucidatio* (NE; 1755). In that work, Kant had argued (against Wolff) that the principle of contradiction could not be the first principle of all truths (NE; Ak. 1: 388). Instead, Kant proposed that the genuine first principle was the (twofold) principle of identity, according to which “*whatever is, is, and whatever is not, is not*” (NE; Ak. 1: 389). This principle allows direct derivations of all truths, according to Kant, since affirmative truths are instances of the first half of the principle, and negative truths are instances of the second half. By the time of the *Critique*, of course, Kant has abandoned the predicate-in-subject principle, and thus the analyticity of all true judgments. He thereby disputes his earlier position on the fruitfulness of the analytic first principle. But in addition, the *Critique* treats the principles of identity and contradiction as essentially equivalent, *contra* the argument of NE. (Compare A 7/B 10 with A 150/B 189; or again, see A 154–5/B 193–4.) Ian Proops also notices that the mature Kant treats identity and contradiction “as merely different aspects or formulations of one and the same principle,” and he points out that this was Leibniz's official doctrine as well (Proops 2005, 606).

¹⁶ Unlike the other cited authors, Hanna (2001, 145) believes that this restriction is an accidental feature of the containment formulation, which lacks any deeply limiting implications for Kant's theory of analyticity. Proops (2005) interestingly argues that Kant's distinction was never *intended* to apply to judgments that are not in categorical form, so that the traditional objection is beside the point. While I admire the creativity and resourcefulness of Proops' argument, I cannot accept it. Consider, for instance, that it seems to matter a great deal for Kant's purposes that we can meaningfully classify many non-categorical judgments as synthetic, like instances of the causal law in the hypothetical form (e.g., ‘If a body is not compelled to leave its state of rest or motion, then it will persist in that state’; see MFNS, Ak. 4: 573). Proops (2005) might want to reply that such claims are not *irreducibly* hypothetical; after all, Kant himself also glosses the law of inertia as ‘All changes of matter have an external cause’ (also at MFNS, Ak. 4: 573). It is implausible, however, that the underlying logical structure of this law was not hypothetical in Kant's eyes. It is presented as arising immediately from the general causal principle (also a synthetic judgment), which is in turn supposed to be a direct realization (repurposed for the job of synthesizing intuitions in experience) of the hypothetical judgment form itself, from Kant's table of logical functions of judgment.

Quine's phrase, "true under all reinterpretations of [their] components other than the logical particles" (Quine 1961 [1953], 23). It is also supposed to cover conceptual truths resting on features of the *implicit* content of the concepts, which figure among the substantive "components" connected by the logical particles. (Indeed, absent the inclusion of such implicitly analytic truths, Leibniz's containment theory would have had no plausibility at all as a general account of truth.) Current-day philosophers tend to accommodate these further propositions by allowing as analytic any judgment that can be transformed into a logical truth by substitution of synonyms, or more generally by substitutions licensed under definitions.¹⁷ From Kant's own standpoint, however, the move is not especially helpful. Officially, Kant insists that very few concepts (indeed, *only* mathematical concepts) have strictly proper definitions (A 727–32/B 755–60), and truth by synonymy would surely look to him like the less adequate (because more parochial, less general) cousin of truth by containment of concepts. Moreover, in so far as Kant's system can offer any substitute for definitions of non-mathematical concepts, these "explications," or logically second-rate, quasi-definitions, rest squarely on *analyses* of the concepts revealing what marks they *contain*.¹⁸ Extending the second definition of analyticity to cover all the conceptual truths thus tends to throw one back onto the notion of containment after all.

There is yet a third idea in Kant's initial discussion, beyond the appeals to containment and to the principles of identity and contradiction. Analyticities are only "**judgments of clarification**," whereas synthetic claims are "**judgments of amplification**" (A 7/B 11). We could thus define analyticities by their merely explicative character: they are judgments that do not carry new information, but simply clarify what was already implicit in prior concepts or judgments.¹⁹ Kant makes use of this mark for analyticity when he claims that any metaphysics worthy of the title would have to include synthetic claims, since we want that science "to amplify our cognition *a priori*" (B 18). That is, a body of doctrine that failed to teach us anything new would not be the genuine scientific metaphysics we seek, and so metaphysics must be synthetic (because ampliative).

On closer inspection, though, defining the analytic/synthetic distinction as a separation between clarifying and amplifying judgments makes no discernible improvement over the containment definition. For Kant perfectly well recognizes that the deliverances of conceptual analysis are often illuminating. Indeed, as long as they are not asked to carry the synthetic load, they can be "of great value . . . [and] can even be presented

¹⁷ For a helpful discussion of the question in a Kantian context, see Van Cleve (1999, 15–21), who proposes a version of the same patch at pp. 20–1. Van Cleve cites Quine's (1961 [1953]) standard version of the synonym-based account, and Frege (1980 [1884]), Carnap (1967 [1928]), and C. I. Lewis (1946), as versions of the approach which appeals to definitions.

¹⁸ It is because these underlying analyses cannot be known with certainty to be exhaustive, that the definitions are not logically perfect. See A 728–9/B 756–7; and for discussion, Beck (2002, 17–26).

¹⁹ This definition is preferred by Allison (1973, 53–6; 1983, 73–8; 2004, 90–4), who rightly notes that it emphasizes the epistemological consequences of Kant's distinction. Allison's views receive attention in sections 1.2.3 and 1.3.2).

separately from all the synthetic propositions that constitute metaphysics itself, as a special part (as it were, as *philosophia definitiva*)” (*Prol.*, Ak. 4: 273–4; see also A xx and cf. A 81–3/B 107–9); that is, the analytic part of metaphysics is not trivial or tautologous.²⁰ It is so far from being so, in fact, that Kant is ready to doubt whether we can achieve *even ordinary certainty* about the exhaustiveness of any analysis of a metaphysical concept (A 728–9/B 756–7). But now, if Kant admits that analyticities can be illuminating, and teach us something new in at least that sense, then applying the third criterion will require us to *separate* the analytic-clarifying kind of illumination clearly from the genuinely synthetic, ampliative kind. This may seem easily enough done in specific cases—as when we distinguish the illumination provided by a complex logical proof from advances that depend on acquiring substantive new information about the facts—but such examples are insufficient to yield a *general* account, which would need to articulate some prior logico-structural criterion to carve out the special class of analytic-clarifying illumination. In Kant, that work is always done by containment itself. The analysis of the relevant concepts is the obvious way to assess whether or not a judgment is really ampliative in the stronger, philosophically significant sense proper to an analytic/synthetic distinction.²¹

The points raised so far pose an immediate question about the relation among the three candidate definitions of analyticity. Plainly, Kant thought the three criteria—based on containment, on the principle of contradiction (or identity), and on the merely explicative versus ampliative character of judgment—were equivalent. His initial discussion of analyticity presents all three without significant qualification or restriction,²² and we saw his willingness to use any of them as a defining mark of analytic judgment. Unfortunately, he does not address which is fundamental. He does, however, offer some hints as to his considered view.

²⁰ In this respect, Kant crucially departs from Locke's conception of the matter, as we will see in section 1.4).

²¹ Thanks to an anonymous referee for comments on this paragraph. Because Henry Allison has been the most determined advocate of the ampliative/explicative formulation, I take it as noteworthy (if backhanded) confirmation of my last point that his own discussion continually takes recourse to talk of containment (or its absence) in explaining *what it is* for a judgment to be merely explicative (or genuinely ampliative) (Allison 2004, 90–4). Allison begins with an explicit rejection of the containment definition because it misleadingly “suggests that the distinction is a logical one” (Allison 2004, 90), and he endorses the ampliative/explicative criterion instead as an expression of its “epistemic functions” (Allison 2004, 91). But what are the epistemic functions? It will not do to say simply that synthetic judgment is for extending knowledge, since analytic judgments, too, can express new insights. Those explicative insights, however, are merely “formal extension[s] of knowledge” (Allison 2004, 91)—*that is to say*, “in such judgments the predicate is related to the object *x* by virtue of the fact that it is *already contained* (as a mark) in the concept of the subject” (Allison 2004, 91; my emphasis). Or again, when Allison explains what is meant by the contrasting “material extension” of knowledge proper to synthetic judgment, he writes that “the connection [among the terms in the judgment] is grounded in, and mediated by, the relation of both to the identical object (*x*). Consequently, it extends our knowledge of *x*... by providing a determination or property of *x* that is *not already contained in the concept*... This is *what is meant by a ‘material extension’*” (Allison 2004, 93; my emphasis).

²² As we saw, Kant *does* restrict the containment definition to affirmative judgments, but only so as to dismiss the restriction as remediable by some (unspecified but trivial) extension. Thanks to Ian Proops (2005), who sees this restriction as somewhat more consequential than I tend to, for pressure on this point.

1.2.3 The centrality of containment

In spite of the unpopularity of the containment idea with both recent readers and contemporary critics like Eberhard and Maaß, it is hard to avoid the conclusion that concept containment (supplemented by appeals to concept *exclusion*; see Proops 2005) served Kant himself as the fundamental idea behind analyticity. Note, first, that containment is the most serious *prima facie* candidate to be the basic conception. It is announced first, and looks to be the official definition. The definition based on the principle of contradiction did initially seem more promising on purely philosophical grounds, and the third, explicative/ampliative definition has the merit of highlighting the epistemological consequences of Kant's distinction (see Allison 1983, 75; 2004, 90). Nevertheless, we saw features of Kant's position that tend to drive both of those alternative proposals back onto the containment idea.

The *prima facie* case receives strong confirmation from a close reading of the decisive passages in the *Critique*. In the initial treatment at A 6–7/B 10–11, Kant *first* introduces the containment definition, and only then proceeds to note the other two marks. Moreover, the further criteria are reached only via inference—as consequences of containment. That is, the passage *defines* analyticities via containment, and then *infers* that “Analytic judgments are *thus* those in which the connection of the predicate is thought through identity”; and a bit later, “One could also call [them] **judgments of clarification** . . . *since* through the predicate [they] do not add anything to the concept of the subject” (A 7/B 10; my emphasis). A similar pattern of dependence appears even where Kant explicitly identifies the principle of contradiction as the supreme principle for analyticities:

if the judgment is to be analytic, . . . its truth must always be able to be cognized sufficiently in accordance with the principle of contradiction. For the contrary of that which, as a concept, already lies and is thought in the cognition of the object is always correctly denied, while the concept itself must necessarily be affirmed of it, since its opposite would contradict [it]. [A 151/B 190–1]

As Ian Proops observes, this appeal to the principle of contradiction “is *not* on its face a *characterization* of analyticity” (Proops 2005, 603). Instead, that principle is supposed to be the “completely sufficient **principle of all analytic cognition**” (A 151/B 191), and it is so *because* in analyticities the predicate “already lies and is thought in” the subject. That is, the class of analyticities is here being identified by the containment criterion, and the principle of contradiction has the role of *accounting for their truth*, in that the opposite of any containment analyticity is a contradiction. Moreover, while Kant claims that all analyticities are true via contradiction, some further argument would be required to show the converse—that every truth following from the principle of contradiction is analytic. Kant offers no such argument, and that leaves containment as the defining mark of analyticity.²³ In all these texts, then, *definitional* priority is granted

²³ This point has also been noticed by de Jong (1995) and Proops (2005). Kant never explicitly addresses the possibility that truths of general logic, based on the principle of contradiction, might not turn on containment, and gives no argument to rule out that possibility. As we shall see, there are arguably such

to what is “thought in” the subject concept, and the further properties of analyticity are derived as consequences of such containment.

The most sustained effort to resist this textual conclusion has been advanced by Henry Allison (1973, 1983, 2004).²⁴ Allison concedes that Kant relies on the containment definition in the *Critique* and *Prolegomena*, but contends that he later changed his mind in reply to Eberhard's (1789) attack on the clarity of the analytic/synthetic distinction. That is, Kant is supposed to retreat (tellingly) to the alternative criteria of analyticity precisely when pressured to clarify his distinction. For Allison, the essential definition is the third, based on the ampliativeness of synthetic judgments, which emphasizes the epistemological relation linking the predicate to a real *object* falling under the subject rather than a merely logical relation of the predicate to the *concept* of the subject (Allison 1973, 53–6; 1983, 73–8; 2004, 90–4). He therefore highlights the general principle for synthetic judgment formulated in Kant's reply to Eberhard: “the principle of synthetic judgments in general, which follows necessarily from their definition [is] that they are only possible under the condition that an intuition underlies the concept of their subject” (OD, Ak. 8: 241). With this account, Allison suggests, Kant recognizes that consideration of the merely logical containment relation will not suffice to characterize the analytic/synthetic distinction. The appeal to intuition takes us beyond the realm of mere logic to the epistemic relation between judgments and their objects, which is decisively characteristic of synthetic truth.

The containment idea, however, simply does not disappear from Kant's post-*Critique* formulations of his distinction. Even in *On a Discovery* itself, Kant appeals to containment to introduce analyticity and even to explicate the idea of ampliativeness.²⁵ For example, OD initially defines synthetic judgments as

judgments through the predicate of which I attribute more to the subject of the judgment than I think in the concept to which I attach the predicate. This predicate, therefore, extends my knowledge beyond *what is contained in that concept*. This does not occur through analytic judgments, which serve merely to represent and assert more clearly what is already *thought and contained in the given concept*. [OD, Ak. 8: 228; my emphasis]

truths, and so the two definitions of analyticity (in terms of containment and in terms of the principle of contradiction) come apart. In Chapter 4, I suggest reasons for Kant to prefer the containment definition, as he does in the quoted passages. Here I simply note that such a position is consistent with Kant's thesis that the principle of contradiction is the supreme principle of analytic judgments: it could be the principle of all analyticities, and simultaneously explain additional truths.

²⁴ Most others who prefer one of the alternative definitions of analyticity do so not on textual grounds, but on philosophical ones. Since the containment definition is fundamentally flawed, the thinking goes, we should give preference to the other criteria Kant uses to isolate the analyticities. Van Cleve (1999, 17–21) offers a clear example of this strategy.

²⁵ A directly parallel textual case can be made about Kant's account of synthetic judgment in the later essay on *What Real Progress has Metaphysics Made in Germany*, at Ak. 20: 323—a text which has been cited by Allison and by Proops (2005, 601–2, 609) as another indication that the late Kant changed his view to make the explicative/ampliative criterion fundamental for the definition of analyticity. (See n. 28 for discussion of Proops. Allison's version of this claim is found in his Editor's Introduction to the *Progress* essay for the *Cambridge Edition of the Works of Immanuel Kant*; Kant 2002, 345–6.)

Or again, in an avowed effort to define the distinction as clearly as possible, so as to defeat Eberhard's alleged obfuscation, Kant writes that synthetic propositions are those

in which the predicate *contains* more in it than is really *thought in the concept* of the subject; in other words, through the predicate of which something is added to the thought of the subject, which is *not contained therein*. Analytic propositions are those in which the predicate only *contains what was thought in the concept* of the subject . . . [OD, Ak. 8: 232; my emphasis]

In Kant's response to Eberhard, then, official definitions of analyticity continue to turn on concept containment, even though (as in the *Critique* itself) Kant freely appeals to the other two criteria whenever that suits the needs of his exposition.²⁶ Once these passages are taken into account, it seems that Allison's reading is driven less by the text of Kant's reply to Eberhard than by philosophical considerations—primarily the felt need to free Kant from commitment to the problematic containment definition—so in my view, it is misleading to say that the fundamental status of the containment definition was “rectified by the analysis in *On a Discovery*” (Allison 1973, 54).

As Allison correctly observes, *On a Discovery* does go beyond the containment definition with its principle of synthetic judgments. Here, again, is the passage he emphasizes:

One can . . . see from what I have just presented as the succinct result of the analytic portion of the critique of the understanding that this expounds with all necessary detail the principle of synthetic judgments in general, which follows necessarily from their definition, viz., *that they are only possible under the condition that an intuition underlies the concept of their subject*. [OD, Ak. 8: 241]

Notice, however, that Kant's claim that synthetic judgments “*are only possible under the condition that an intuition underlies the concept of their subject*” is officially advanced not as a *definition* of synthetic judgments, but as their “principle,” which is supposed to replace the principle of sufficient reason to which Eberhard traces all such judgments (see OD, Ak. 8: 240–1). That is, the principle *grounds and explains the possibility* of synthetic judgments, thereby answering the *Critique*'s main question about the possibility of metaphysics. I concede Kant's remark that the principle “follows necessarily from [the] definition” of synthetic judgment (OD, Ak. 8: 241), but *following* from the definition does not make it identical with the definition itself, or equivalent to it. On the contrary, the new principle is Kant's solution to a problem—the problem of synthetic judgment—that is first generated by the *containment* definition. Since, by that definition, synthetic judgments cannot be true on the basis of a containment relation between concepts, there must be some “third thing” (A 154–5/B 193–4), outside the concepts themselves, to underwrite their connection. According to the *Critique*, that “third thing” is the “*intuition underl[ying] the concept of their subject*” (OD, Ak. 8: 241), or more fully, the “one totality” of possible experience shaped by the forms of intuition, in which all intuitions that are

²⁶ See, e.g., OD, Ak. 8: 229, 241, and 245, for examples of Kant's reliance on the principle of contradiction criterion.

parts of a unified experience must find a place (A 155–8/B 194–7). So the principle emphasized by Allison is not best read as a new definition of the analytic/synthetic distinction, but as a thesis that “follows from the definition” as the solution to a problem that emerges once the (containment) definition is accepted.

The same strands of textual evidence, coupled with consideration of the primary dialectical and argumentative *use* to which Kant intends to put his distinction, also cut against the important, more recent set of doubts about the containment definition due to Ian Proops (2005). Proops (2005, 608–9) prefers to characterize Kantian analyticity in terms of identity and contradiction, but I do not believe his account actually differs in logical essentials from the containment-based interpretation. He begins by carefully noting (as Marc-Wogau (1951) also had) that Kant's appeals to containment only work in general for the case of affirmative analyticities, whereas Kant clearly intends his distinction to extend to negative analytic judgments and those that are analytically false, in which the constituent concepts of the judgment are standardly related by contradictory *exclusion* rather than *inclusion* (see A 6/B 10, A 154/B 193; Ak. 2: 203, Ak. 18: 648, Ak. 29: 789). For a full account of analyticity, then, the notion of containment must be complemented by that of conceptual exclusion. Still, for Kant himself, this was supposed to be part of the general containment idea all along: “So, strictly speaking, the general idea behind the so-called ‘containment criterion’ is the thought that analytic truth can be characterized in terms of relations of containment *and exclusion*” (Proops 2005, 591).²⁷ Moreover, Proops signs on to a central feature of the containment-based account in holding that for Kant, the fundamental conception of analyticity involves certain relations *among the conceptual constituents* of the target judgment, as opposed to the broader notion of logical truth as “derivability from the principle of contradiction” in general, which was sought by Shin, Van Cleve, Hanna, and their predecessors. Still, Proops (2005, 608–9) prefers to think of these judgment-internal relations as a matter of identity-and-contradiction, rather than containment-and-exclusion—mainly because he interprets the latter as *necessarily* confined to merely partial and (therefore) implicit, or covert, conceptual identity, so that on his reading, the containment definition fails to cover explicit identity statements like ‘ $a = a$ ’ (expressly recognized as analytic at B 16–17, and elsewhere). This strikes me as a needlessly restrictive reading, since (from a logical point of view, at least) each term of an explicit identity can be construed as including, or containing, the other as its improper part.²⁸ I will therefore

²⁷ See A 154/B 193, where Kant makes it explicit that the extension of the containment conception of analyticity to negative judgments will involve concept exclusion. Casteñeda (1960, 141) also notes the point.

²⁸ In my view, it counts as further evidence against Proops' restrictive reading that when the role of analytic identity statements within mathematics comes up for direct discussion, Kant marks no distinction whatsoever between explicit identity statements like ‘ $a = a$ ’ and formulations like ‘The whole is greater than its part,’ where the (partial) identity is implicit in the content of the terms:

To be sure, a few principles that the geometers presuppose are actually analytic and rest on the principle of contradiction; but they also only serve, as identical propositions, for the chain of method, and not as principles, e.g., $a = a$, the whole is equal to itself, or $(a + b) > a$, i.e., the whole is greater than its part. [B 16–17]

continue to use Kant's official talk of containment to capture the sense of analyticity resting on (explicit or implicit, full or partial) identity/inclusion and contradiction/exclusion relations among a judgment's constituent terms, and reserve the identity/contradiction criterion of analyticity to capture the broader notion of logical truth, or "derivation from the principle of contradiction alone," that is often sought by critics of the containment definition.

What is most distinctive of Proops' interpretation, however, is his claim, against those same critics of the containment definition, that Kant never intended his distinction to be exhaustive, and that its apparent limitation to categorical "subject–predicate" judgments is not a bug of any sort, but just a distinctive feature of Kant's stipulative definition. Like other scholars, I find this suggestion hard to accept.²⁹ Some *textual* evidence strongly suggests (to my ear) that Kant intended his distinction to apply to judgments in other (non-categorical) forms: "judgments may have any origin whatsoever, or *be constituted in whatever manner according to their logical form* [my emphasis], and yet there is nonetheless a distinction between them according to their content, by dint of which they are either *explicative* and add nothing to the content of the cognition, or *ampliative* and augment the given cognition; the first may be called *analytic* judgments, the second *synthetic*" (*Prol.*, Ak. 4: 266; but cf. Proops 2005, 594, for an alternate reading³⁰). Even more decisive in my mind, however, is what follows from considering

I concede to Proops that there is one clear instance in which Kant explicitly restricts the term 'analytic' to *informative* claims where the underlying identity remains implicit, and distinguishes such judgments from trivial tautologies; this occurs in the essay on *What Real Progress has Metaphysics Made in Germany since the time of Leibniz and Wolff?* (Ak. 20: 322). In my view, Kant there adopts the terminological restriction for local expository purposes only, and it does not represent the serious change of view about the proper definition of analyticity which Proops finds (2005, 601–2, 609). Tellingly, in the immediately ensuing definition of synthetic judgment (Ak. 20: 323), Kant relies entirely on the containment definition to explain the sense in which such judgments are irreducible to analyticities, and he thereby clearly means to oppose synthetic judgment to the entire class of analytic judgments, including *both* the informative analyticities and the tautologies he has just been distinguishing from one another.

²⁹ Proops (2005, 609) himself notes this widespread resistance to his interpretation.

³⁰ Hanna (2001, 145) cites the same passage to this end. Proops (2005, 594) offers an alternative reading, taking Kant's reference to "logical form" to concern the issue of how perfectly distinct its constituent concepts have been rendered via analysis. While such a usage of 'logical' does occur in Kant (notably in criticisms of "the Leibnizian–Wolffian philosophy" for taking the distinction between sense and understanding to be "merely logical"; see A 44/B 62–3, A 271/B 327), the reading is unconvincing for this passage. The sense in which the question of concept distinctness is a "logical" one for Kant is that it rests on whether the concept's component marks have been made explicit and distinguished from one another—the complaint against Leibnizian–Wolffians is that they take spatio-temporal representations to be confused (i.e., non-distinct) conceptual representations, rather than perfectly distinct but non-conceptual representations. Thus, the point pertains to the characteristic logical form *proper to concepts* (as distinct from judgments and inferences), which concerns relations among their constituent marks (see *Logic* §§ 5–6, Ak. 9: 93–5). These formal relations among marks are central to the notion of analyticity; they *are* the containment relations (see Chapter 2). But so far from supporting Proops' reading, the observation cuts against it, for the passage in question aims to assert that such questions of analytic containment (or not) pertain to the *content* of judgments that is here being *contrasted* against their "logical form." It follows that (at the level of hylomorphic analysis operative in the disputed sentence), Kant's contrast between logical form and content must refer to the difference between the "logical forms of judgment" (*Logic* § 20, Ak. 9: 102)—i.e., the forms listed in the table of logical functions of judgments (which are distinguished

the *intended use and dialectical target* of Kant's distinction. Kant's aim, again, is to reject the metaphysical program associated with the Leibnizian predicate-in-subject theory—viz., the effort to construct a fully adequate metaphysics expressed entirely in conceptual truths. Thus, what will matter is to establish *that there really are irreducibly non-conceptual truths*—truths that cannot be captured through the containment relations that (according to Leibnizians) lay at the basis of all truth whatsoever. The core issue at stake for Kant, then, is the expressive adequacy of concept containment itself (regardless of which logical forms may be taken by the judgments in question), and any judgment (categorical or not) that does not turn on such containment will count for him as synthetic, thereby contributing to his case against the expressive adequacy of Leibnizian conceptual truth.

We can thus reach a preliminary conclusion: Kant's own underlying thought was always that the containment of concepts is what makes a judgment analytic. It is because analyticities have this logical feature that we can derive them from the principle of contradiction. (The opposite of a containment truth denies the predicate of a subject that already contains it, and so generates a contradiction.³¹) Likewise, the non-ampliative character of analyticities is explained by the fact of containment, from which it follows that the predicate does not go beyond what was (implicitly) expressed already in the subject concept.

On reflection, the fundamental standing of the containment definition for Kant makes perfect sense, given his target. As he makes clear in the *Prolegomena* passage attacking Wolff's derivation of the principle of sufficient reason (Ak. 4: 270), Kant opposed his distinction to the Wolffian ideal of a system of metaphysics comprising only strictly conceptual truths. Given that dialectical role, the distinction is obviously meant to undermine the predicate-in-subject principle, accepted in some form by all the Wolffians as well as by the pre-critical Kant himself. As a result, when Kant defends the possibility of synthetic judgments, the core thesis he needs to dispute is that the predicate must be contained in the subject in order for a judgment to be true. Thus, concept containment ought to be the essential defining mark of the analytic.

This result sets a constraint on our inquiry. Any reconstruction that hopes to be adequate to Kant's historical position must identify the class of analyticities through the

from one another by appeal to their "mere form"; A 70/B 95)—on the form side, and the concepts linked by such judgments (together with their containment relations), on the content side. Thus, what the *Prolegomena* passage means to assert is that judgments of any form (be they affirmative or negative; categorical, hypothetical, or disjunctive; singular, particular, or universal; etc.) may be either analytic or synthetic. It therefore counts as strong evidence that Kant intended his distinction to apply to non-categorical judgments, contrary to Proops' non-exclusive reading of the distinction. (See also n. 16 on the syntheticity of some hypothetical judgments.)

³¹ By extension, the opposite of a negative analytic judgment affirms of the subject some predicate that is excluded from it. (This is the "easy" extension noted by Kant at A 6/B 10; see again Proops' (2005, 591) careful presentation.) The extension from the case of categorical judgments to the broader class of hypothetical and disjunctive judgments is both more interesting and much more problematic for Kant's containment definition. See Chapter 4 (and n. 23).

containment definition. Whatever the other two criteria have to teach us, it will be relevant to analyticity *sensu* Kant only in so far as it illuminates the basic idea of containment truth. Of course, such a conclusion generates problems of its own, for we have by no means removed the difficulties surrounding the containment definition itself. But in the end, if we cannot clear the core notion of containment of the charges of obscurity that have plagued it from Maaß through Quine and Kitcher (1990, 27), then Kantian analyticity itself must simply falter along with it. It is therefore one of the primary burdens on any account of Kantian analyticity to provide a detailed and systematic account of concept containment as a logical notion. Discharging that burden will occupy much of my attention in later chapters (esp. Part I, The Traditional Logic of Concept Containment and its (alleged) Metaphysical Implications).

1.3 Logic, Methodology, Epistemology: Three Conceptions of Analyticity in Kant

I just characterized concept containment as “a logical notion,” and we saw that much discussion of Kant’s distinction (pro and con) has concerned whether his proposal actually separates judgments into two clearly distinct and genuinely logical classes. But what does it mean to call containment truth a “logical” idea? A full story must await detailed investigation of the place of concept containment within the traditional logic, but a preliminary remark is in order here. For as Allison’s reading shows, such a description is controversial. For a variety of reasons—whether to defend Kant’s distinction against objections, or out of an independent concern to secure boundaries around the logical domain, or based on a desire to find broader philosophical motivations for Kant’s idea—scholars have sometimes insisted that the analytic/synthetic distinction is not supposed to be a properly *logical* idea at all.

Such interpretations can draw some comfort from Kant himself. At different times in his development, Kant did deploy the terms ‘analytic’ and ‘synthetic’ to mark at least three different, albeit related, versions of the distinction: 1) a logical distinction between two kinds of judgment; 2) a methodological distinction between two kinds of concept formation (and by extension the judgments expressing them); and 3) an epistemological distinction between two different ways of knowing (and by extension the types of judgment so known). Nevertheless, I will defend the thesis that Kant’s *mature* analytic/synthetic distinction was always meant to capture an essentially logical idea—viz., that judgments can be divided into two classes based on a difference in the logical relation among their constituents. I will also argue, however (Part II), that Kant’s *development* can only be understood by acknowledging the basically different methodological and epistemological versions of the distinction with which he struggled over the course of a long effort to arrive at the clear, strictly logical distinction of the mature critical position. Before we can evaluate Allison-style claims that Kant’s distinction is epistemological rather than logical, we need a clear understanding of what

these different versions of the distinction would amount to. This section makes a brief excursus through some of Kant's pre-critical writing with the aim of characterizing the methodological, epistemological, and logical conceptions of analyticity. Here it will be enough to indicate the sense in which Kant's distinction is "logical"; I defer full discussion of Kant's development to Part II.

1.3.1 *The analytic and synthetic as methods*

In his first published uses of the terms 'analytic' and 'synthetic' to mark an important distinction, Kant makes an essentially *methodological* point.

The methodological sense of the terms is traditional. It has its roots in an ancient distinction between analysis and synthesis as methods of proof, recognized in both ancient geometry and Aristotle's *Analytics*.³² In this usage, analysis is a regressive, or "bottom-up," procedure which reasons back from some relatively more specific consequences to discover simpler, more general, or more fundamental principles. Synthesis, conversely, infers "top-down" from first principles to the consequences they entail or explain. The tradition also often counts analysis as a method of discovery and synthesis as a method of instruction; the thought is that bottom-up analysis can lead from more specific observations to interesting explanatory principles, and synthesis presents our knowledge in its proper order of justification (i.e., from simple to detailed, from principles to consequences), which is thought to be most transparent (see Arnauld and Nicole 1996 [1683], 233–9). Kant's mature writings echo this traditional usage when distinguishing analytic from synthetic methods of inquiry in philosophy.³³ These points are commonly made, but it is also often (and correctly) noted that the traditional distinction for *methods of inquiry* seems to be orthogonal to Kant's characteristic distinction between analytic and synthetic *judgments*.

Still, a glance back at the pre-critical writings indicates an important connection between the two. The pre-critical Kant appeals to analytic and synthetic methods in both the 1764 *Inquiry concerning the Distinctness of the Principles of Natural Theology and Morality* (or "Prize Essay"; I) and his 1770 *Inaugural Dissertation* (ID). In these contexts, he goes beyond the standard, traditional ideas about methods of *inquiry in general* to make a more specific point about contrasting methods for the *formation of concepts*. Kant opens the *Inquiry*, for example, with the observation that "There are two ways in which one can arrive at a general concept: either by the *arbitrary combination* of concepts, or by *separating out* that cognition which has been rendered distinct by means of analysis" (I, Ak. 2: 276).³⁴ Just as analysis *qua* method of proof reaches its

³² See Michael Beaney's treatment in the *Stanford Encyclopedia of Philosophy* (Beaney 2009).

³³ Kant claims that his approach in the *Prolegomena* and the *Groundwork* follows the analytic method because he takes as given some substantial rational achievement (e.g., geometrical knowledge, our awareness of duty), and then infers regressively back to the general principles that explain the achievement's possibility (viz., space as the form of intuition, the categorical imperative; see *Prol.*, Ak. 4: 263–4, 274–5; *Groundwork*, Ak. 4: 392).

³⁴ Kant's *Inaugural Dissertation* offers a very similar account. See ID § 1, Ak. 2: 387–9.

conclusion by arguing regressively from specific observations to simpler principles, so, analogously, one can “regressively” *produce newly formed concepts* by beginning with some given concept, or cognition, and resolving it into its simpler, more general, constituents. Conversely, one can begin with the simpler concepts, and build one’s target concept synthetically through their “arbitrary combination,” for example in mathematical definitions. Kant’s line of thought here extends the traditional distinction between analysis and synthesis from its home context (where it captures a broad scientific methodology applicable to entire bodies of theory) into a more specific method for generating the content of particular theoretical concepts.³⁵

This characterization of analytic concept formation clearly anticipates the mature analytic/synthetic distinction for judgments. Extending the method of analysis into the domain of concept formation associates the analytic method with the question of what is contained in a given concept, since in this special case, the concept’s implicit conceptual constituents are just what regressive analysis reveals. The same observation presumably motivated Leibniz and Wolff when they appealed to the “*analysis* of notions” (AG 23–7, 31, and elsewhere; my emphasis) as the process for rendering the content (i.e., the contained marks) of a concept distinct—an account of analysis and conceptual distinctness that had become completely standard by Kant’s time.³⁶ With

³⁵ Within a broadly rationalist metaphysical program—like the one for which Kant still nourished hopes at the time of the *Inquiry*—the extension has a certain naturalness. After all, given that the ultimate truth about the world is supposed to be conceptual, one might well suppose that the basic insights of a metaphysical system could in principle be encapsulated within a suitably foundational and properly formed concept. (Consider in this context the role of the concept of the divine essence or of the best possible world in Leibnizian–Wolffian systems, or the pretended metaphysical role of the rationalist concept of the *omnitudo realitatis* as Kant portrays it in the *Critique*’s “Ideal of Pure Reason” chapter.) If we had such a synoptic, internally structured concept, then the application of analytic and synthetic methods of concept formation to it, on the one hand, and the application of analytic and synthetic methods to reasoning within the theory more generally, on the other, should be notational variants.

³⁶ Leibniz introduced this idea in the “Meditations on Knowledge, Truth, and Ideas,” whose formulations were adopted by Wolff (1965 [1754] *DL*, 1st edn 1713) and became standard in eighteenth-century logics. Leibniz’s seminal treatment distinguishes clear from obscure cognitions according to whether we can use them reliably to identify their intended objects, and then (within the clear cognitions) separates distinct from confused cognitions according to whether or not the component marks that are responsible for the cognition’s discriminatory power are themselves explicitly distinguished and clearly represented; for “the thing does indeed have such marks and requisites into which its notion can be resolved” (AG 24). “Resolution” in this sense was a standard name for the procedure involved in the traditional method of analysis (see Arnauld and Nicole 1996 [1683], 233; Beaney 2009), and Leibniz associates his sense of analysis with the traditional analytic method as the discussion proceeds to encompass adequate and inadequate knowledge:

Also, one has distinct knowledge of an indefinable notion, since it is *primitive*, or its own mark, that is, since it is irresolvable. . . . But in composite notions, since, again, the individual marks composing them are sometimes understood clearly but confusedly, . . . knowledge . . . may be distinct, yet *inadequate*. When everything that enters into a distinct notion is again distinctly known, or when analysis has been carried to completion, then knowledge is *adequate*. . . . [AG 24]

Here, ‘resolution’ and ‘analysis’ are clearly names for one and the same method for making notions distinct by separating out and rendering explicit their component conceptual marks. Leibniz indicates a further connection to the traditional analytic method when he suggests that a perfect analysis of notions would