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The Analytic Method, the Synthetic Method, and the Idea of Philosophy Kant on How to Read Kant

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Abstract: In several passages, Immanuel Kant advises his readers about how to approach his texts. In each one of them, Kant connects the text at hand with either the analytic or synthetic method. Understanding such methods contains thus the promise to illuminate how Kant thinks one should read him. Unfortunately, Kant makes differing claims about these methods, the most obvious being his claim that the *Critique of Pure Reason* is synthetic, which seems to be incompatible with his claim that philosophy cannot proceed synthetically. Additionally, Kant distinguishes the methods in a wide variety of ways, often at odds with his predecessors' distinctions. Furthermore, if any methods were Kantian, it would be the critical or the transcendental methods—not the analytic or synthetic ones. Here I examine Kant's various senses of the distinction between the analytic and synthetic methods in order to explain Kant's various comments about his texts. More importantly, I show that the second half of the *Critique of Pure Reason*, the "Doctrine of Method" (*Methodenlehre*), is considerably more important than it has been traditionally understood. Indeed, it points to the crucial upshot of Kant's critical project, namely, it calls for a significant rethinking of how to philosophize.

Keywords: Kant's experimental method; *Doctrine of Method*; synthetic method; analytic method; critical method; transcendental arguments; scholastic idea of philosophy; cosmopolitan idea of philosophy.

Immanuel Kant sometimes offers hints regarding how his philosophical system is to be understood. In the *Prolegomena*, a work meant to clarify his arguments in the *Critique of Pure Reason*, he concedes that the "scholarly exactitude" of the latter may interfere with the reader's ability to "survey the whole," which can be

redressed with study of the former (*PFM* 4:263). In the *Groundwork of the Metaphysics of Morals*, Kant explains that the foundation for the forthcoming "metaphysics of morals" is a critique of pure practical reason (a work not yet published), but that the *Groundwork* is more suitable for the "common understanding." In the *Critique of Practical Reason*, Kant implores the reader to understand the whole of his system by first coming to an "accurate and complete presentation" of its parts

¹ Immanuel Kant, *Prolegomena to Any Future Metaphysics that Will Be Able to Come Forward As a Science*, transl. Gary Hatfield, in *Theoretical Philosophy after 1781*, eds. Paul Guyer and Allen W. Wood, New York, NY: Cambridge University Press 2002, pp. 49-169, here 4:261. [Henceforth cited as *PFM*] I cite each primary Kant text using the *Akademie Ausgabe* pagination.

² Immanuel Kant, *Groundwork of the Metaphysics of Morals*, ed. and transl. Mary Gregor, Cambridge, UK: Cambridge University Press 1998, 4:391. [Henceforth cited as *GMM*]

and warns that without this "intimate acquaintance with the system" any apparent inconsistencies should be blamed only on the reader's "own incoherent train of thought."³

Remarkably, in each of these passages, Kant identifies each method with a formal name, namely, the "analytic" and the "synthetic" method. The Prolegomena is presented analytically, the Critique of Pure Reason, synthetically (PFM 4:263-4). The Groundwork begins with two analytic sections followed by a synthetic third one (GMM 4:392). Kant states that the parts of his system must be given analytically, after which one must engage in a "synthetic return" to them by way of understanding their relationships to a whole (CPrR 5:10). Kant's "experimental method," by which he endeavors to argue for transcendental idealism, is comparable to the synthetic method of a chemist, and he states that the metaphysician engages in an analysis akin to chemistry.4 Hence, Kant's distinction between the analytic and synthetic method promises to illuminate how Kant thinks one should understand

In what follows I argue that this distinction is indeed helpful to understand Kant's philosophy. Clarifying his methodological notions compels one to recognize and emphasize parts of his philosophical project that are usually ignored or dismissed. Kant finds the notion of method to be a crucial part of his revolutionary metaphysics; his critique of reason is not just a blow to the content of traditional metaphysical systems but one to their very method. Seeing this reveals a significant implication of his critique, namely, that it calls on scholars to rethink the very idea of philosophy. I start my argument by examining various notions of the analytic and synthetic methods as they are understood by Kant and his predecessors.

Defining the Analytic and Synthetic Method – Kant and His Predecessors

Identifying a method as either "analytic" or "synthetic" has a long history going back to Aristotle and is often

associated with Euclid. Tracing the history of the terms reveals a cluster of concepts that share only a "family resemblance" to each other (to borrow a phrase from Ludwig Wittgenstein), rather than any single straightforward definition. Kant himself offers several definitions of each method, which align only sometimes with the ones of his predecessors.

Moreover, Kant's own characterizations of his texts or arguments as being analytic or synthetic, do not, by themselves, clarify the distinction. If the Prolegomena follows the "analytic method," it is difficult to see how the first two sections of the Groundwork do too, given their different structures. Kant's claim that the Critique of Pure Reason is synthetic seems at odds with his repeated claim that philosophy cannot proceed synthetically, as mathematics can (CPuR A726-7/B754-5).5 Likewise, if his first Critique is synthetic, it should seem as though his second Critique is for the same reasons synthetic as well. But Kant implies that the latter is analytic (CPrR 5:10). Crucially important chapters of both the first and second Critiques are called the "Analytic" (A64/ B89; CPrR 5:16). Furthermore, if any method is widely associated with Kant, it is neither the synthetic nor the analytic one, but the critical or transcendental method.

Kant's most extensive definition of the methods is in the *Hechsel Logic*:

With synthetic method one begins with principles of reason and proceeds toward things that rest on principles[;] with analytic method one proceeds toward principles from things that rest on principles. Synthetically, I begin with definitions and proceed to axioms, corollaries, with all their consequences[;] thus this method, when I proceed from the simple to the composite is synthetic. Analytic method is always combined with popularity, for one gets used to abstract cognitions when one ascends to principles rather than having to begin with them. Synthetic method is the most perfect of all[;] but when I accommodate myself to the capacity of other men, then I begin with their common concepts, seek a rule based on these, then seek to draw a common principium, and thus I climb from lower cognitions to high ones.6

³ Immanuel Kant, *Critique of Practical Reason*, transl. Mary J. Gregor, Cambridge, UK: Cambridge University Press 1997, 5:10. [Henceforth cited as *CPrR*]

⁴ Immanuel Kant, *Critique of Pure Reason*, transl. and ed. Paul Guyer and Allen W. Wood, New York, NY: Cambridge University Press 1998, Bxxi fn. [Henceforth cited as *CPuR*]

Also see, Immanuel Kant, "Inquiry concerning the distinctness of the principles of natural theology and morality (1764)," transl. David Walford in collaboration with Ralf Meerbote, in *Theoretical Philosophy*, 1755-1770, transl. and ed. David Walford and Ralf Meerbote, New York, NY: Cambridge University Press 1992, pp. 243-275, here AA 2:276. [Henceforth cited as *INQ*]

⁶ Immanuel Kant, Lectures on Logic, transl. and ed. J.

The general distinction concerns the direction of reasoning: the synthetic method begins with the basic elements of a system, such as definitions, and proceeds toward the implications of those elements, the analytic method begins with some concrete, perhaps in the sense of popular, cognition and, as it were, ascends from it to principles. A more extensive examination reveals eight different senses of the distinction, that are bundled into three broad categories, namely (1) those that interpret the elements as grounds and consequences considered as argumentative components, (2) those that interpret the elements as cognitions considered as abstract or concrete, and (3) those that interpret the elements as grounds and consequences considered as causes and effects.

Consequences and Grounds: Considered as Argumentative Components

In "The Dohna-Wundlacken Logic" Kant states that the synthetic method goes from grounds to consequences and the analytic from consequences to grounds (*DWL* 9:779). He further identifies the synthetic method with the "mathematical method," which seems directly taken from Georg Friedrich Meier's *Excerpt from the Doctrine of Reason*, which was Kant's textbook for his logic courses. Meier aligns consequences with conclusions and grounds with premises. *The Port-Royal Logic* also identifies the synthetic method with that of the geometers. Hence, in this sense the distinction has

Michael Young, New York, NY: Cambridge University Press 1992, here "The Hechsel Logic," pp. 381–423, see marginal 115. [Henceforth cited as *HL*] I will also refer to "The Dohna–Wundlacken Logic," pp. 431–516. [Henceforth cited as *DWL*]; the "Vienna Logic," pp. 249–377. [Henceforth cited as *VL*]; "The Blomberg Logic," pp. 5–244. [Henceforth cited as *BL*]; and "The Jäsche Logic," pp. 521–630. [Henceforth cited as *JL*] Online at https://cdchester.co.uk/wpcontent/uploads/2018/05/Lectures-on-Logic-The-Cambridge-Edition-of-the-Works-of-Immanuel-Kantin-Translation-Immanuel-Kant.pdf.

- ⁷ Georg Friedrich Meier, *Excerpt from the Doctrine of Reason*, transl. Aaron Bunch, Axel Gelfert, and Riccardo Pozzo, New York, NY: Bloomsbury Academic 2016, AA 16:786-8.
- ⁸ Antoine Arnauld and Pierre Nicole, *Logic or The Art of Thinking*, transl. and ed. Jill V. Buroker, New York, NY: Cambridge University Press 1996, p. 239. [Henceforth cited as *PRL*]

to do with the order of argumentative components: whereas the synthetic method moves from premises to a conclusion, the analytic one moves from the conclusion backwards. Since the most basic types of premises are definitions, axioms, and corollaries, a proof that so begins and moves toward conclusions, proceeds synthetically. This, of course, corresponds to the layout of Euclid's *Elements*, which is why the synthetic method is identified with the mathematical method.

Clearly, however, geometry may also proceed analytically. Consider the following passage taken from Heath's "Introduction" to Euclid's *Elements*:

Analysis is an assumption of that which is sought as if it were admitted <and the passage> through its consequences to something admitted (to be) true.

Synthesis is an assumption of that which is admitted <and the passage> through its consequences to the finishing or attainment of what is sought.¹⁰

Suppose one wants to know whether geometrical claim X is true. One can assume X is true and then work backward in order to see if that truth is supported by truths already known. If it is indeed supported, one can then present the proof for X in the opposite direction, thereby beginning with the basic premises and stopping with X. Hence, the way a truth is (in fact) discovered is not necessarily the same way as it is being presented (*PRL* 238). If a truth is presented with the premises first and the conclusion is deduced from them, it is a synthetically presented proof. If, however, that conclusion was discovered to be true by first assuming it as true and working backwards from it, then, regardless of its presentation, it was discovered analytically.

As stated in the *Port-Royal Logic*, the analytic method in this mathematical sense is suitable only for supporting particular truths (*PRL* 237). Indeed, even if analysis is applied to many individual claims, it will never result in systematic thoroughness; the proven truths only represent pieces of any possible system. One can only capture a complete system by beginning with that system's definitions and axioms, and then moving forward, synthetically, to all the truths those initial starting points entail when adhering to the rules of the

⁹ Indeed, Kant characterizes the synthetic method exactly this way (*HL* 115).

¹⁰ Euclid, *The Thirteen Books of the Elements*, transl. Thomas L. Heath, second edition unabridged, Vol. 1, New York, NY: Dover Publications 2013, p. 138.

system. Complete logical systems are thus presented synthetically. The analytic approach, on the other hand, only stumbles haphazardly on true claims. This is why Kant and many others claim that the synthetic method is preferable to the analytic one (*HL* 115-6).

The opportunity for systematic thoroughness, along with the recognition that geometry offers conclusive proof for its claims, is why the synthetic method of geometry becomes the envy and aim of many early modern philosophical systems. Spinoza's *Ethics*, for example, emulates the synthetic method of geometry. While Kant does not agree that philosophy can proceed synthetically, when presenting the *Critique of Pure Reason*, he wishes to maintain the systematic thoroughness provided by the synthetic method.

Relationship between Cognitions: High and More Abstract – Low and More Concrete

Kant states that analysis "climbs" from concrete (low) cognitions to abstract (high) ones (*HL* 115-6). "Common concepts" and "common principles" (*principia*) he considers as being low. Kant clarifies that a concept is higher than another if the latter can be subsumed under the former, meaning it is a species of the genus of the higher one. Likewise, out of two concepts one concept is higher if it is more abstract than the other one, in comparison (*JL* 99-100). For example, "man" — the more concrete concept—is lower than the more abstract and higher concept of "rational being" (*BL* 240). Thus, moving from the lower, more concrete concept, to the higher, more abstract concept, is to proceed analytically, while proceeding in the opposite direction, is to proceed synthetically.¹¹

In this sense "synthesis" resembles "conceptual analysis." To synthesize means to divide an abstract concept, while to analyze can sometimes mean taking a concept apart in order to see what it already contains. Kant notes that in this sense, "dividing" a concept

(synthesis) differs from "taking it apart" (analysis) (*VL* 925). He also uses the metaphors of "contained in" for the latter, "contained under" for the former (*JL* 98, 146). This means that to examine the concept of "rational animal" and to see that "man" is part of its scope is not to say that the latter is analytically part of the former, but rather a species of it. The same holds true for synthesizing. Likewise, examining the concept of "man" and concluding that it belongs to the class of "rational animal" is to analyze—not, importantly, because the concept of rational animal is already contained in the concept of man, but because "man" is the more concrete, lower concept.

This sense of the distinction also applies to principles. Consider the most basic syllogism: All humans are mortal. Socrates is a human. Hence, Socrates is mortal. As one begins with the first premise and reasons deductively to get to the conclusion, one departs from a more abstract, higher principle and descends to a specific claim, and hence proceeds synthetically. If one begins with the lower and more concrete claim and ascends to the principle that grounds the claim, one has proceeded analytically.

The metaphor of "ascending" and "descending" signals how Kant speaks of the "logical use of reason" in the Critique of Pure Reason. In order to formulate a claim one can offer a prosyllogism or an episyllogism. The first is to offer premises in support of the claim, the second to deduce further claims from it. Kant calls the prosyllogism the "ascending" series, and the episyllogism, the "descending" series (A331/B387-8). Importantly, he calls the higher claims "conditions" and the lower ones the "conditioned." Significantly, Kant uses the same language to describe the analytic and synthetic methods: the synthetic method moving from principles (conditions) to the conditioned, and the analytic one from the conditioned to the principles (JL 149); or, likewise, the synthetic one from "principles of reason" to "things that rest on principles" (HL 115).

Thinking of synthesis as moving from the conditions to the conditioned, and of analysis in the opposite direction, is highly illuminating, as Kant characterizes the transcendental ideas of pure reason (the ideas of the soul, the cosmos, and God), as the "unconditioned." In his discussion of the paralogisms—faulty rationalist arguments about the soul—Kant argues that one cannot begin with a general principle ("all thinking beings are substances") from which then to deduce more concrete truths ("I am a thinking

¹¹ The metaphor of ascending and descending can get confusing here, since Kant also identifies higher cognitions as "grounds" (*JL* 146) implying that they are lower. One might think, for example, that Euclid's *Elements*, which begins with definitions, is providing the ground for the rest of the conclusions and that subsequent claims are ascending. But Kant would say we are starting high (even if we are starting with "grounds") and going lower (to more specific conclusions), and that hence, we are "descending." Stephen Palmquist helped me gain clarity on this point.

substance"). Instead, he says, one must "follow the *analytic* procedure" (Kant's emphasis) and begin with the actuality, "I think," in which case generalizing anything about a thinking being is blocked (B418). And so here, in one of the most important parts of Kant's critique, the distinction between analytic and synthetic method becomes all-important. Indeed, it emerges as a defining characteristic of how Kant distinguishes his system from rationalism.¹²

Often, when Kant characterizes a concept or principle as being low or concrete, he also identifies it as "common," in the sense that it refers to a commonly held belief, or a belief someone already holds (*HL* 115-6). As such, he refers to the analytic method – starting with a common concept or principle and proceeding towards more abstract concepts and principles – as the "popular method" (*HL* 115-6). Importantly, he also refers to the distinction in two mereological senses, with synthesis going from the part to the whole, with analysis going the opposite way (*BL* 291), and synthesis going from the simple to the composite (*HL* 115, JL 149).

To summarize, there are seven different senses of the distinction in Kant:

- * Synthesis goes from premises to conclusions; analysis proceeds in the opposite way.
- * Synthesis starts with general definitions, proceeds to axioms and corollaries, and ends with conclusions; analysis proceeds in the opposite way.
- * Synthesis descends from high cognitions (more abstract) whether they are concepts or principles to low cognitions (more concrete); analysis ascends the opposite way.
- * Synthesis begins with conditions—principles—and descends to objects that rest on those principles (the conditioned). Analysis begins with the conditioned and ascends to the principles upon which they depend.
- * Analysis begins with common concepts and, through analysis of those common (and hence lower) concepts, ascends to higher principles; synthesis presumably moves in the opposite way.
- * Synthesis moves from part to whole; analysis moves in the opposite way.
- *Synthesis proceeds from simple to composite; analysis presumably moves the opposite way.

In addition to these seven different senses of the distinction, yet another quite significant sense of the distinction arises. It is the cause-and-effect relationship.

Relationship between Grounds (Causes) and Consequences (Effects)

So far, the distinction between the analytic and synthetic method was seen in the context of the order of elements in a presented argument. Yet it also refers to how a subject matter is being investigated. In this sense, analysis studies an effect—a given phenomenon—and investigates its cause by reasoning back to the basic principle or law that explains the phenomenon. Synthesis, in this sense, begins with a cause and reasons to its effects.¹⁵

Isaac Newton identifies his method in precisely this way, namely, as a combined analytic and synthetic

¹² Lanier Anderson has argued that the alignment of synthesis with rationalism and analysis with empiricism is incorrect and that furthermore, focusing on the analytic and synthetic as a methodological distinction does not capture what is novel about Kant's system (The Poverty of Conceptual Truth, New York: Oxford University Press 2015, p. 186-7). But it does seem that at least in the Paralogisms and the Antinomy, Kant associates each with the synthetic and analytic method respectively, and that therefore, at least in those contexts, he is commenting partly on the failure of each method. As will become clear, I do not mean to say that Kant rejects either method on a wholesale level, but rather that each is only properly applied after a critical analysis, which Kant employs in the first half of the Critique of Pure Reason, that is then synthesized under the emergent and correct idea of philosophy.

¹³ Of course, beginning with an already held belief and proceeding by examining it is the Socratic Method, which Kant indeed identifies as being analytic (*VL* 843-4).

¹⁴ There is another sense in which the distinction refers not to ordering elements but to generating definitions. Synthetically arriving at a definition means to "arbitrarily combine concepts," while doing so analytically means to "separate out" cognition by means of "analysis" (*INQ* 2:276).

Significantly, David Hume claims is that one cannot, through reason, infer any effects from a cause; for example, inferring anything about what gunpowder may cause just by examining its intrinsic properties. See David Hume, An Enquiry Concerning Human Understanding, ed. Eric Steinberg, Indianapolis, IN: Hackett Publishing Company 1977, Section 4, Part 1). Hence, it is no surprise that the language of synthetic and analytic reoccurs when Kant concerns himself with investigating the possibility of synthetic a priori truths.

method. In natural science, just as in mathematics, analysis ought to "precede the method of composition," where composition refers to synthesis. 16 "This analysis," he says, "consists in making experiments and observations, and in drawing general conclusions from them by induction. 117 He continues:

By this way of analysis we may proceed from compounds to ingredients, and from motions to the forces producing them; and in general from effects to their causes...This is the method of analysis, and the synthesis consists in assuming the causes discovered, and established as principles, and by them explaining the phenomena proceeding from them, and proving the explanations. [NPW 139]

Arguing that analysis must precede synthesis is to argue that one must begin with some phenomenon, analyze it—which includes experimentation—and only then infer general principles.¹⁸

Newton's belief that mathematics also proceeds in this direction is contrary to Kant's contention that it can proceed synthetically. Kant agrees with Newton, however, that philosophy, just like the natural sciences, must begin with analysis of some given data (*INQ* 2:276; A730/B759). And, indeed, Kant also agrees that philosophical analysis is properly followed by a synthesis. Hence, Kant's method mirrors Newton's in this important sense, or, as Falkenburg argues, that it is

"analogous" to Newton's method (KSA 20). I will return to this topic shortly.

Kant further identifies the synthetic method — in the sense of going from conditions to the conditioned — as the "progressive" method, and the analytic method – going from the conditioned to conditions, as the "regressive" one (JL 149). Interestingly, Kant uses the same terms in the first antinomy, where he critiques arguments about the cosmos (A499/B527). There, he speaks of the "conditioned" as what is given to us in space and time that prompts us to search for its "condition," namely, an explaining principle. To proceed from the conditioned back to its condition is to "regress" (and presumably to engage in analysis). However, just like when reasoning about the soul, one will be blocked from reaching any genuinely grounding principle; indeed, Kant shows that the search leads to contradictory conditions. Kant clearly understood the distinction of the methods to be connected to his critique of metaphysics.

This adds yet another sense of the distinction, namely

* Analysis consists in examining a phenomenon and reasoning back to its causes, synthesis consists in treating the cause as a basic principle that can then entail further truths. The "analytic-synthetic" method is to perform analysis first, moving back to basic principles or laws, and then to perform synthesis, from these principles or laws, moving forward to predicting phenomenon based on these laws.

These eight senses of the distinction can serve one in understanding Kant's own classifications of his texts. There is yet another set of distinctions that is also important to this discussion.

Characterizing the Purpose of Each Method

Peter Dear's analysis shows how seventeenth-century philosophy distinguished between a pedagogical notion of method, which addressed how to present and transmit knowledge that had already been gained (*ordo*) and an investigative sense of method, which concerned the appropriate way to discover new knowledge (*methodus* proper).¹⁹ In the *ordo* sense, an argument can be presented analytically or synthetically (in any of the first seven senses above). Likewise,

¹⁶ This terminology is not uncommon in early modern literature. Kant makes the same identification (*BL* 131). As Brigitte Falkenburg points out, conceptualizing the analytic method as "resolutive" and the synthetic as "compositive" emerges in Galieo (but traces back to Jacopo Zabarella), which influenced Thomas Hobbes, who adopted it as a method of philosophy. See Brigitte Falkenburg, "Kant and the Scope of the Analytic Method," *Studies in History and Philosophy of Science* 71 (October 2018), 13-23, here p. 14. [Henceforth cited as *KSA*]

¹⁷ Isaac Newton, *Philosophical Writings*, ed. Andrew Janiak, New York, NY: Cambridge University Press 2004, p. 139. [Henceforth cited as *NPW*] See also Newton's own references to the method in his correspondence with Roger Cotes (*NPW* 119, 121) and the editor's introduction to the *Principia* (*NPW* 43-4).

¹⁸ Richard Talaska argues that Hobbes adopts a similar method that is more closely related to Galileo's version of the resolutive and compositive methods. See Richard A. Talaska, "Analytic and Synthetic Method According to Hobbes," *Journal of the History of Philosophy* 26/2 (April 1988), 207-237.

¹⁹ Peter Dear, "Method and the Study of Nature," in *The Cambridge History of Seventeenth-Century Philosophy*, eds. Daniel Garber and Michael Ayers, New York, NY: Cambridge University Press 1998, pp. 147-177, here pp. 147-8.

methodus may proceed synthetically or analytically. While *ordo* concerns how a text or argument happens to be presented, *methodus* is a normative concept—it indicates the proper way of gaining knowledge.²⁰

Frustratingly, even though these purposes clearly come apart from my seven distinctions, they are sometimes identified with them. The *Port-Royal Logic* identifies the synthetic method as being the "method of instruction" and the analytic one as the "method of discovery" (*PRL* 233). René Descartes identifies the analytic method as one in which truths were, in fact, discovered, which is why he identifies the *Meditations* as being analytic.²¹ Kant too sometimes aligns the

analytic method with a method of invention or discovery (*HL* 116; *JL* 149) and the synthetic method with a method of exposition (*HL* 116). In my view, the methods and their purposes are best kept separate, since, as I have shown, the way truths are discovered may differ from the way they are presented.

Kant, I shall argue below, articulates a third purpose: an interpretative method. Ordo is pedagogic from a teacher's or expert's perspective: how shall one present already-discovered truths? In contrast to it, an interpretative method is pedagogic from a learner's perspective: how shall one learn a subject matter? This distinction can help one to understand how Kant characterizes his own writings.

Understanding Kant's Own Classifications of his Writings

Kant claims that his *Critique of Pure Reason* exemplifies the synthetic method. Gabriele Gava has shown that many scholars have noted that this seems to contradict Kant's arguments that philosophy cannot proceed synthetically.²² Paul Guyer and Allen Wood imply that we should ignore the comment, noting, to my mind correctly, that the transcendental deduction in both the *Critique of Pure Reason* and the *Prolegomena* proceeds analytically (*CPuR* 68). But clearly, Kant does not mean to refer to *methodus* when referring to his first critique as a synthetic text. He refers to *ordo*, or the way in which the material of the text is presented.²³

But what is the text actually about? The content of the *Critique of Pure Reason* can be interpreted in many ways: as an argument for transcendental idealism, as an argument against traditional metaphysics, as an

²⁰ This is not to say that *ordo* cannot have a normative sense. Euclid's *Elements*, for example, is best presented synthetically. Yet while the mistake of presenting it analytically would be a stylistic or pedagogic mistake, the mistake of proceeding synthetically in a field in which one should begin analytically (science according to Newton and philosophy according to Kant), is more serious; it can delude one into thinking that one has knowledge when one does not.

²¹ In an objection to Descartes' Meditations, compiled by Marin Mersenne, the objector suggests that Descartes could help his readers better understand his arguments by presenting them synthetically instead of analytically. See René Descartes, Selected Philosophical Writings, transl. John Cottingham, Robert Stoothoff, and Dugald Murdoch, New York, NY: Cambridge University Press 1998, marginal pp. 128-160. [Henceforth cited as SPW, with marginal pagination] Descartes claims the text of the Meditations follows the "analytic" method, by which he seems to mean that it captures for the reader Descartes' actual (or at least supposed) intellectual process of coming to the conclusions that he does. The contrast herethe synthetic method—is considered as being the one aligned with mathematics, in the first and second sense that I described above. Indeed, Descartes, in his response to Mersenne, reorganizes his system in the Meditations beginning with definitions and axioms (SPW 160-70). Descartes defends his decision to present the original text "analytically" by saying that presenting it synthetically is "not as satisfying as the method of analysis, nor does it engage the minds of those who are eager to learn, since it does not show how the thing in question is discovered." Analysis, he thinks, is the "best and truest method of instruction" and "shows the true way by means of which the thing in question was discovered methodically...so that if the reader is willing to follow it and give sufficient attention to all points, he will make the thing his

own and understand it just as perfectly as if he had discovered it for himself" (SPW 156).

²² Gabriele Gava, "Kant's Synthetic and Analytic Method in the *Critique of Pure Reason* and the Distinction between Philosophical and Mathematical Syntheses," *European Journal of Philosophy* 23/3 (September 2015), 728-749, here pp. 729-30. [Henceforth cited as *KSA*]

²³ Gava argues a similar point when he distinguishes between what he calls the broad sense of the distinction (aligning with the method of presentation) and a narrow sense (aligning with the method of investigation) (*KSA* 731-2). He correctly argues that Kant's first *Critique* is synthetic in the first sense but goes on to explore as to how one might come to think of the Transcendental Deduction as being synthetic in the second sense (*KSA* 739-43).

argument proving Hume wrong, as an articulation of the limits of knowledge. I propose that insofar as one speaks of its presentational structure, the material being presented is a system of possible (theoretical) synthetic *a priori* truths.²⁴ Kant himself characterizes the project in this way (*CPuR* B6-7).

In what sense is the material presented synthetically? The Critique of Pure Reason presents important definitions early in the text, namely those of analytic and synthetic statements (CPuR A7/B10-1) and also adopts the language of axioms (CPuR B202) and principles (CPuR A131/B169), which may have one believe that it is synthetic in the second sense of the aforementioned distinctions. But this by itself would capture nothing insightful about the text's argumentative structure. Additionally, if "synthesis" means starting with abstract cognitions and "descending" refers to the comparatively concrete (as in the fourth sense), then the Critique of Pure Reason seems to move in the opposite direction, since its early elements-space and time-are more concrete than the later and highly abstract transcendental ideas of pure reason. I propose that Kant refers to the text as synthetic in the mereological senses captured by the sixth and seventh aforementioned distinctions: going from part to whole, or from the simple to the composite.

Kant's chapter and section headings support this claim. The book's first half is a "doctrine of elements." the most basic ones of which are the forms of intuition, namely space and time. It then addresses the pure categories of understanding, which, together with intuitions, can result in synthetic a priori knowledge, that is, the principles. In the subsequent chapters Kant turns to the broader category of the transcendental ideas of pure reason—it is "broader" for Kant because these ideas are rooted in syllogisms, that themselves are composed of principles. Kant's discussion of the ideas concludes the doctrine of elements, after which he moves to the proper (but considerably shorter) second half of the book, namely the "doctrine of method." And so, the text has proceeded from simple elements to composed ones.

Importantly, Kant thinks that every level of the doctrine of elements—intuition, concepts, principles,

ideas—represents a complete inventory of each kind. Accordingly, space and time are the only forms of (discursive) intuition, the twelve categories and the resulting principles constitute a complete list. Likewise, he claims that the three ideas of the putative objects of metaphysics (the soul, cosmos, and God) are the only ideas that stem from the syllogisms rooted in the relational categories. At each stage, he thinks he presented a complete inventory of all possible synthetic *a priori* truths, taking advantage of the systematic thoroughness available by proceeding synthetically.

This reading of the *Critique of Pure Reason* reveals how Kant's Prolegomena is an analytic presentation of the most important conclusions of the same system. The text is organized around the conclusions of that system, as shown by the questions Kant poses: (1) how is pure mathematics possible? (2) How is pure natural science possible, and (3) how is metaphysics in general possible? (4) How is metaphysics possible as a science? (PFM 4:280). The text presents two important conclusions from the Critique of Pure Reason, namely that pure mathematics is possible and that pure empirical science is possible, and ascends to the principles that allow for those possibilities. Hence, the Prolegomena is an analytic presentation in the first sense of the aforementioned distinctions, insofar as it begins with conclusions and moves toward support for those conclusions, or in the third sense, insofar as it begins with "low cognitions" that are then being analyzed for their more abstract grounds. The text, then, explains how to understand the important argumentative moves of the *Critique*.²⁵

The manner in which the *Prolegomena* reflects the analytic method differs from the manner applied in the first two sections of Kant's *Groundwork of the Metaphysics of Morals*. The latter begins with the "common cognition" of morality and analyzes it in order to get to the "determination of its supreme principle" (*GMM* 4:392). It is analytic in the fifth sense of the aforementioned distinctions, and is, thus, going from a common belief about morality, presumably referring to the common concept of duty, to the principle that grounds it, namely

²⁴ I say "possible" because only some of the examples that Kant considers will turn out to be synthetic *a priori* truths; Kant argues that the claims he critiques in the Transcendental Dialectic are not such truths.

²⁵ There remains the question of whether the *Prolegomena* are analytic investigations. Does Kant take the arguments to be proofs that pure mathematics or pure empirical science are possible? I do not think so. If so, it would be difficult to see how Kant is not begging the question against Hume. But I shall not attempt to settle this question here.

the categorical imperative. Likewise, the third section of the *Groundwork* is "synthetic," insofar as it begins with a principle—the categorical imperative—and examines it "back to the common cognition" (*GMM* 4:392).²⁶ Consistent with the second sense of the aforementioned distinctions, Kant offers a thorough and systematic synthetic presentation of his metaethics in the *Critique of Practical Reason*, where he explicitly begins with definitions, theorems, and corollaries (*CPrR* 5:20-23),²⁷ and in his normative ethics in the *Metaphysics of Morals*, which, in formulating his theory of virtue and right begins with definitions of several basic concepts.

Two objections to my account may arise. First, are the fine distinctions I have drawn between the methods not reducible to each other? Second, should we not expect Kant to use analysis and synthesis in the same sense in both the *Critique of Pure Reason* and the *Prolegomena*?²⁸

Certainly, these distinctions are unified in important regards. Generally speaking, "synthesis" is a method that begins with disparate elements and progresses by composing them (hence the name "method of composition"), and "analysis" is a method that begins with the whole and decomposes it into its elements ("method of resolution"). For example, and briefly returning to the aforementioned distinctions, the first and second sense moves from premises, presumably joined with other premises, and is then "synthesized" toward a conclusion. Furthermore, if the premise of an argument is a general principle, starting with it and deducing a specific conclusion, is to move from abstract to concrete, making thereby the third sense reducible to the first. Likewise, with the fourth sense, one might understand "condition" to mean premise, and the "conditioned," being a conclusion. Even with the eighth sense, one could conceive of a law as a proposition that serves as the general premise of an argument, and the specific effect as being the conclusion.²⁹

I do not deny that the distinctions share a basic pattern; after all, they are senses of the same methods. Refining them, however, illuminates important insights as to how Kant understood his own applications of each method. Consider, for example, Kant's classification of both the *Prolegomena* and the first two sections of *GMM* as being analytic. On a broad level, the obvious shared structure between those texts is that they both begin with a claim (or set of claims) that Kant then analyzes regarding its necessary conditions — for the Prolegomena, a claim such as "pure mathematics is possible," for GMM, perhaps one such as, "duty requires acting from a good will."30 But the nature of these claims, according to Kant himself, is very different: whereas the first is a substantive metaphysical claim that needs argumentative support, the second is a common belief, the analysis of which reveals what else one is committed to with the (presumed) acceptance of this belief. The important difference is lost unless one distinguishes between the first and fifth aforementioned senses.

Furthermore, generalizing the methods may commit one to interpretations of the texts that are misleading. For example, consistent with either one of the first aforementioned senses, suppose that one agrees that the Prolegomena is analytic inasmuch as it begins with conclusions that it then analyzes for the sake of revealing necessary conditions or premises, or in the third sense inasmuch as it ascends from low cognitions to high ones. Then we would expect that the Critique of Pure Reason, given the same understanding, would begin with general (high or abstract) claimspremises – and then move toward conclusions and the concrete. Even if one understands the classification of CPuR as a synthetic exposition rather than a synthetic investigation (which is reasonable), one is still left with a framework that would force one to understand the beginning sections of the text as foundational or abstract principles, and the ending sections as more concrete conclusions. Yet, as I have shown before, the text appears to move in exactly the opposite direction.

²⁶ Pursuing this line of interpretation, it is not clear here what the "common cognition," is that the third section supposedly leads to, unless Kant means to refer to the idea of freedom as being common.

²⁷ Indeed, the synthetic presentation in *CPrR* is more obvious than the one in *CPuR*. As Kant explains, in the former, the subject material lends itself to going from the general to the specific, whereas the latter forced him to begin with the specific (*CPrR* 5:16).

²⁸ My thanks to Gabriele Gava for pressing me on these points.

²⁹ This interpretation matches precisely how Hempel and Oppenheim conceive of their deductive-nomological model of scientific explanation. See Carl G. Hempel and Paul Oppenheim, "Studies in the Logic of Explanation," *Philosophy of Science* 15/2 (April 1948), 135-175.

³⁰ It is unimportant for my purposes here whether this is indeed the exact claim – of importance here is solely that Kant took the claim to be a common sense one.

Now, both Gava and Melissa McBay Merritt offer readings of how the *CPuR* is synthetic and the *Prolegomena* is analytic, in the "same sense." For example, Gava argues that the contrast has to do with the systematicity available to the synthetic method, as opposed to the "rhapsodic" nature of the analytic one (*KSA* 733). McBay Merritt argues that the difference is that the analytic method of the *Prolegomena*, from an exegetical perspective, lacks a unifying principle that could explicitly relate its analyses, and hence, that it can make no claim to being a science. Only by adopting the synthetic method of the *Critique*, she argues, is Kant able to unify the "whole of cognition" under a single unifying principle (the principle of the synthetic unity of apperception), which explains its status as a science.³¹

Again, I fully agree that Kant wants to emphasize the systematic nature of the synthetic method. Yet, by contrasting the methods in only this way – the analytic one as being unsystematic and the synthetic one as being systematic-does not capture what blocks analysis from systematicity or what allows for it in synthesis. In contrast, interpreting the texts under my model presented here captures the difference. Beginning with a conclusion or a given piece of knowledge, as I am arguing the Prolegomena does, will never yield a complete system. On the other hand, beginning with the most basic elements of a system (space and time), fully evaluating them, and then moving on to the next level of elements and so on, assures that each part of the system is accounted for and uncovered, which is the only way Kant could support his claim that his survey in the Critique of Pure Reason is complete and comprehensive.

Now that I have been able to reconcile Kant's classifications of his writings, I am in a better position to show what motivates him to structure the texts the way he does. It is particularly illuminating examining more deeply the relationship between the *Prolegomena* and the *Critique of Pure Reason*.

Systematic Completeness versus Understandability for the Reader

Kant is clear on the point that the *Prolegomena* was organized analytically for the sake of the reader.

The *Critique of Pure Reason*, on the other hand, was presented synthetically for the sake of the system. Kant says he was "compelled" to compose it that way (*PFM* 4:263). The system itself, Kant implies, already had its unique structure, the organization of which is merely being mirrored by the text. Furthermore, Kant implies that his articulation of that structure was coupled with his discovery of it; the structure of the system only came "into relief" during the very activity of chiseling it out. Kant emphasizes this point several times, most clearly in the Architectonic chapter of the *Critique of Pure Reason*:

It is too bad that it is first possible for us to glimpse the idea in a clearer light and to outline a whole architectonically, in accordance with the ends of reason, only after we have long collected the relevant cognitions haphazardly like building materials and worked through them technically with only a hint from an idea lying hidden within us. [CPuR A834-5/B862-3]

Insofar as the elements of the Critique are interpreted to be a body of possible theoretical synthetic a priori truths, the "idea hidden within us," is the idea of the structure of that body of truths: a blueprint of where each of these elements stands in relation to every other. Kant calls this idea "architectonic," which he comprehensively lays out in the chapter of the same name (CPuR A832/B860). A sculptor has an idea of a statue's final form and is guided by it; simultaneously, its very idea emerges from the act of sculpting. Admittedly, this all has the threat of recursiveness to it—or worse, of circularity. One wonders how the system ever gets off the ground. But undoubtedly, Kant's view is that the synthetic presentation of the Critique of Pure Reason is driven by the very structure of its own content.

Hence, the *Prolegomena* represents the *Critique of Pure Reason*'s structural fulcrums, or, as Kant puts it, the "structural organization of a quite peculiar faculty of cognition, in their natural connection" (*PFM* 4:263). It acts as a big picture survey for the reader who is unable to see it after the systematic articulation of its parts. Indeed, it is a big-picture return to the elements of the system that Kant did not originally think the reader would need. It is only after the reception of the *Critique of Pure Reason* that Kant saw that readers could not (or did not) grasp the big picture themselves. He emphasizes that the guide should not replace study of the synthetic presentation of the same material. No analytic approach

³¹ Melissa McBay Merritt, "Science and the Synthetic Method of the 'Critique of Pure Reason'," *The Review of Metaphysics* 59/3 (March 2006), 517-539, here pp. 522-3 [Henceforth cited as *SSM*]

can obtain the systematic completeness of a synthetic one. While the reader of the *Critique* can be rest assured that the system is complete, the reader of the *Prolegomena* must take Kant's word for it.

The *Prolegomena* as a Synthetic Return to the *Critique of Pure Reason*

One way to characterize the *Prolegomena*'s big-picture survey of the elements of the *Critique of Pure Reason* is by calling it a synthesis of those elements. This language doubtlessly obscures matters—I only use it in this way because Kant himself does so:

When it is a matter of determining a particular faculty of the human soul as to its sources, its contents, and its limits, then, from the nature of human cognition, one can begin only with the parts, with an accurate and complete presentation of them (complete as far as is possible in the present situation of such elements as we have already acquired). But there is a second thing to be attended to, which is more philosophic and architectonic: namely, to grasp correctly the idea of the whole and from this idea to see all those parts in their mutual relation by means of their derivation from the concept of that whole in a pure rational faculty. This examination and guarantee is possible only through the most intimate acquaintance with the system; and those who find the first inquiry too irksome and hence do not think it worth their trouble to attain such an acquaintance cannot reach the second stage, namely, the overview, which is a synthetic return to what had previously been given analytically; and it is no wonder that they find inconsistencies everywhere, although the gaps they suppose they find are not in the system itself but only in their own incoherent train of thought. [CPrR 5:10]

This passage might initially strike one as confused in any sense of the distinction of analysis and synthesis. The seemingly relevant mereological sense of the distinction—the sixth of the aforementioned distinctions—classifies synthesis as moving from part to whole and analysis moving from whole to part. However, here the synthetic return is a survey of the system from the standpoint of the whole, the parts of which were given analytically.

The notion of "synthetic return" found in the above passage, I believe captures Kant's "method of interpretation" and offers a normative standard for the learner of a philosophical system. It is one instance of Kant offering a literary theory or a hermeneutics, that is,

a method of understanding a system.³² The suggested method is that one understands a system's parts and their relationships, and then one grasps the "idea of the whole" with an aim at understanding how those parts are derived from that idea. It is thus perfectly consistent to say that a reader, especially a first-time reader, of the first or second *Critique* is reading a synthetically presented text, but, after reading the Doctrine of Elements, might not yet have a grasp of the system as a whole. The elements—although systematically presented—were probably only understood as a haphazard collection of pieces, since the reader was in no position to understand them from the standpoint of the whole.

This situation brings about a hermeneutic circle, which is the point that A. T. Nuyen argues too:

With the hermeneutic model in mind, we can see that what Kant is doing in the "Transcendental Doctrine of Elements" is to collect the materials, the parts that have to be fitted in a whole. Before being fitted harmoniously and coherently into some architectonic whole, what is said about those materials in the "Transcendental Doctrine of Elements" can only have a provisional status. As yet there is no conception of a whole to guide and nurture our understanding of the cognitive materials. The hermeneutic circle has not been broken into. However, as the materials are gathered, an idea of a whole, an architectonic, suggests itself. [IKA 161-2]

A reader will understand the idea of the whole only once a complete presentation of the parts has been achieved, and one will truly understand the significance of how all the parts relate to each other only once an idea of the whole has been acquired.³³ Hence, one cannot understand the *Critique of Pure Reason* after reading it only once—an observation that might cause either relief or anxiety for the first-time reader.

When understood in the seventh aforementioned sense, a synthetic return is a synthesis that is going from simple to composite. Now, I have previously

³² See A. T. Nuyen, "On Interpreting Kant's Architectonic in Terms of the Hermeneutical Model," *Kant-Studien* 84/2 (1993), 154-166. [Henceforth cited as *IKA*] Nuyen offers an interpretation of the architectonic of pure reason as a hermeneutic model in the tradition of Hans-Georg Gadamer.

³³ As Pierre Keller once said by invoking Søren Kierkegaard: the *Critique of Pure Reason* must be read forward, but understood backward.

characterized the *Critique of Pure Reason* as being synthetic in the same sense—but there, the concept of simple was understood as referring to the basic elements of the system, the concept of composite as referring to the combination of those elements. Here in the context of synthetic return, the simple is understood as denoting the idea of the whole, the composite, as the elements of that whole when comprehended from the perspective of that idea.

This sense of synthesis hence resembles an educational use of the term. Educators want their students to synthesize concepts and theories — pull them together and form a picture of the whole. Provided one treats the "whole" here as the idea of the system—the architectonic structure—one can see that the first half of the *Critique of Pure Reason* is a breaking down of the elements of that structure and a presentation of them in their systematic order. It is, in this sense, an analysis of the idea of that system. Hence, it is the reason why both *Critiques* begin with a chapter called The Analytic.

I want to suggest, however, that the *Prolegomena* is not the proper synthetic return to the elements of the *Critique of Pure Reason*. Indeed, Kant included a formal synthetic return in the *Critique* itself, namely as its second half: the *Methodenlehre* (Doctrine of Method).

The Methodenlehre and the Idea of Philosophy

Kant offers another type of synthetic return that aims at synthesizing the same material (the elements) in a more progressive way than that of the *Prolegomena*—that is, in a way that advances his argument instead of merely summarizing it. Indeed, the second half of the *Critique of Pure Reason*—the *Methodenlehre*—should be understood, I argue, as the synthesis of the first half, that is, the Doctrine of Elements. The focus of this synthetic return is the idea of philosophy, understood as an activity.³⁴ The *Methodenlehre* continues to build on this synthesis by instructing one how to proceed philosophically in the light of this new idea.

Thus, a reader of the *Critique of Pure Reason* who has synthesized the elements of the metaphysical system, can now understand the implications for the activity of philosophy. Here, Kant speaks of method as being a plan, analogous to a blueprint, that instructs one as to how to construct the elements in order to form

an edifice (*CPuR* A707/B735). The *Methodenlehre*, then, instructs one how to proceed once one understands the very limits of metaphysics, which Kant has delineated in the elements. Hence, it can be argued that G. Felicitas Munzel's rendition "ways of instruction" describes more accurately Kant's aim in the *Methodenlehre* than the more common translation, "doctrine of method."³⁵

By way of the *Methodenlehre*, the reader finally obtains Kant's endorsement of the proper method of philosophical investigation. Armed with the knowledge of the limits of reason, one can now conceive of how to philosophize. Thus, this section is the culmination of one of the crucial goals of the entire activity of critique—a characterization that goes quite contrary to the tendency of Kant's readers who tend to ignore or dismiss it.³⁶

Kant repeats here that philosophy cannot proceed in the way mathematics can. Kant's explicit reasoning is that mathematics deals with constructed concepts and philosophy with already given concepts (*CPuR* A713/B741). A deeper point lurks here: Any system that pretends to investigate philosophical truth synthetically is rooted in an idea of philosophy that Kant's critique has revealed to be misguided, namely, the scholastic concept (*CPuR* A838/B866).

The scholastic concept treats the material of philosophical debate as elements that could, after investigation, reach a final and static formulation, able to be presented with logical and technical unity. "Technical unity," for Kant, means that all the principles and claims of the system are organized and fit together,

³⁴ One would normally use the word "discipline" here – but Kant reserves that word to refer to the control and limit of philosophy (*CPuR* A710/B738fn).

³⁵ G. Felicitas Munzel, *Kant's Conception of Pedagogy*, Evanston, IL: Northwestern University Press 2012, p. xi.

³⁶ For example, A. W. Moore, tasked with interpreting the Methodenlehre, emphasizes mostly only one section (wherein Kant discusses the notion of transcendental arguments). See his "The Transcendental Doctrine of Method," in The Cambridge Companion to Kant's Critique of Pure Reason, ed. Paul Guyer, New York, NY: Cambridge University Press 2010, pp. 310-26. An important exception here is Alfredo Ferrarin, The Powers of Pure Reason: Kant and the Idea of Cosmic Philosophy, Chicago, IL: University of Chicago Press, 2015. Ferrarin thoroughly examines the importance of the Methodenlehre, arguing that Kant's method "is not an external systematic form we must dismiss in order to get to the living contents of Kant's philosophy. The method is the scientific form operating and guiding the several systems of cognition" (p. 35).

yet that the organizing principle is not generated from within the system itself but rather given from without (CPuR A833/B861). Under the scholastic idea, "to philosophize" means to study and understand the complete system. In contrast to it, Kant clearly states that to do that is not to philosophize (CPuR A836/ B864). For Kant, the proper idea of philosophyinchoate and only implicit in the activity of critique emerges and becomes articulate once one recognizes the limits of the capacity to reason: the "cosmopolitan concept" of philosophy (CPuR A838/B866). Philosophy understood in this way is the "science of the relation of all cognition to the essential ends of reason"; in this framework, a "philosopher" is someone who is the "legislator of human reason" (CPuR A838-9/B866-7). What then are the "essential ends of reason"? Kant does not say it, but I would argue they are goals of the critique, that are summarized by three questions in the Canon:

What can I know? What should I do? What may I hope? [CPuR A805/B833]

In theoretical reason, the essential goal of reason is to satisfactorily answer the entire range of metaphysical questions. The *Critique of Pure Reason* has shown that the traditional way of understanding these questions leads only to contradictions and inconsistencies. They are only satisfactorily answered by relying on practical reason. This means that theoretical questions should be guided in a regulative manner by practical interests.

What does it mean for a philosopher to be a "legislator of human reason"? "To legislate" means not only to make laws but also to enact and regulate them. And so, a philosopher will regulate human reason according to its limits, which are those very ones that Kant has detailed in the Critique of Pure Reason. When a new philosophical or metaphysical question arises (which Kant implies will inevitably happen), the philosopher, guided by or adhering to the cosmopolitan idea of philosophy, will interpret and attempt to answer the question in a way that understands its significance not in isolation but rather in connection with other philosophical claims that together, along with others, form a systematic whole. Each of these claims gains its significance only by its very place in that system, as determined by the essential ends of reason. This way of proceeding, I argue, is the investigative method that Kant himself endorses, namely the critical method. Importantly, Kant's critical method can be understood as a combined version of analysis and synthesis. Understanding that method, along with my interpretation here of the *Methodenlehre*, shows how Kant argues for transcendental idealism.

A New Understanding of Kant's Critical Method

Kant rejects both synthesis and analysis as valid methods of philosophical investigation, at least when understood as stand-alone methods. He explicitly states that he rejects synthesis as a stand-alone method where synthesis is taken as a method that begins with general principles and entails truths from them. The claim that he rejects analysis, in the sense of beginning with a given phenomenon and examining it back to its grounding principles, is less obvious. After all, the transcendental deduction in the Critique of Pure Reason, where Kant attempts to prove that the pure categories of the understanding are necessarily applicable to spatialtemporal objects, proceeds analytically: it analyzes the concept of an objective judgment and examines its necessary conditions. Indeed, the very concept of a transcendental argument, traditionally understood as having the form of "X is a necessary condition of Y, Y is true, therefore, X is true"37 is essentially an analytic procedure, not to mention, one that is most often associated with Kant.

I agree that a transcendental argument is analytic in its form, and I also agree that Kant often argues this way. But I suggest that it is not—at least on a narrow reading—his endorsed method of philosophical investigation. It is certainly not, I argue, his method of proving transcendental idealism. After all, in the Antinomy, Kant rejects the stance that the analytic method by itself is reliable.

I argue that the method of investigation that Kant ultimately endorses is the "critical method," which, of course, is not a new claim. Yet I suggest that what Kant means by it is more extensive than it is normally understood. As is well known, Kant contrasts the "critical" method to the "dogmatic" method of Christian Wolff and the "skeptical" one of Hume (*CPuR* A855/B883). The dogmatic method proceeds by maintaining the truth of some core principle with the aim of leaving nothing undecided (*VL* 884-5; *JL*

³⁷ See Robert A. Stern, "Transcendental Arguments," in *The Stanford Encyclopedia of Philosophy Archive* (Summer 2019 Edition), ed. Edward N. Zalta, https://plato.stanford.edu/archives/sum2019/entries/transcendental-arguments.

83-4). The skeptical method proceeds by showing the uncertainty of some core principle, in a way that shows the impossibility of attaining certainty for any claim (*JL* 84). In contradistinction to these two methods, the critical method proceeds by critically investigating the source of one's claims, fueled by the hope, but in the absence of any guarantee, of attaining certainty (*JL* 84). The last one is the one Kant himself follows in his three critiques. And there is no doubt that Kant examines the "source" of metaphysics by examining the very capacity of reason.

Yet Kant also identifies his method as the experimental method, which aims to imitate the method of science by seeking that "which admits of being confirmed or refuted through an experiment" (*CPuR* Bxviii). He hence proposes his famous hypothesis, that "objects must conform to our cognition" (*CPuR* Bxvi), which, if it removes the "unavoidable conflict of reason" (*CPuR* Bxviii), one can assume to be true. Given this, one might understand Kant's experiment as hypothesizing the thesis of transcendental idealism, namely that objects conform to our cognition, and testing it against the thesis of transcendental realism, which conversely holds that cognition conforms to objects. By showing that the latter results in a contradiction (the Antinomy), one can show the former to be true.

Falkenburg argues that this experimental method is an "analogous use" (*KSA* 20) of Newton's analytic-synthetic method (in the aforementioned eighth sense). As she correctly notes, it

proceeds by means of conceptual analysis of the logical consequences of a specific metaphysical position, just as the experiments of natural science proceed by analysis of the phenomena under given conceptual conditions. $[KSA\ 20]^{38}$

This view is supported by Kant's own claim that his method "has much in common with what the chemists sometimes call the experiment of reduction, or more generally the synthetic procedure" (*CPuR* Bxxi). He goes on to contrast the "analysis of the metaphysician," by which he presumably means his own Transcendental Analytic chapter, with the Transcendental Dialectic chapter—indicating that the first is the analytic portion, the second the synthetic portion of an analytic-synthetic experiment. And so,

even though Kant rejects the analytic method narrowly construed, Falkenburg nevertheless characterizes his critical method as a more comprehensive analytic-synthetic one.

While I do not disagree with Falkenburg's claim, I find it to be too narrowly conceived. Undoubtedly, the structure of the Transcendental Analytic and the Transcendental Dialectic mirror an analytic-synthetic experiment. But a more comprehensive vision of Kant's experiment emerges in the Methodenlehre. By interpreting Kant's experimental method as an analyticsynthetic procedure in a broader sense, one can see that the delineation of the elements of the Critique of Pure Reason includes (not excludes) the Transcendental Dialectic. After all, the "Transcendental Dialectic" is "Division II" of the "Doctrine of Elements," which is properly the first half of the book. Synthetically returning to these elements which, I have argued, is the role of the second half—the *Methodenlehre*—is to survey them from the standpoint of the idea of the whole.

In the Methodenlehre, one can for the first time see the structure and relationship of the elements. Certain assumptions about their relations lead to inconsistencies and contradictions (transcendental realism), but under a different assumption they fit compatibly and harmoniously not just with each other but with the interests of reason. One can see that the system is only properly synthesized under the cosmopolitan idea of philosophy, and thus, that that idea becomes the ground upon which further philosophical study ought to be based. Hence, Kant's method is indeed analogous to Newton's method. Newton began by analyzing natural phenomenon and uncovering general theories—he then proceeded by synthetically using those theories as the foundation for further study of the phenomenon. Kant proceeds in the same manner, the resulting theory being the new idea of philosophy.

It is commonly thought that Kant provides only two arguments for transcendental idealism.³⁹ I suggest that Kant offers solely one: he forms a working hypothesis of transcendental idealism, which leads to

³⁸ Falkenburg also argues that this method replaces the earlier method of analysis that Kant endorsed in his early work (*KSA* 16-20).

³⁹ The first proof being the argument in the Transcendental Aesthetic that mathematical truths would not be possible unless space and time were pure forms of intuition (and hence, that they are transcendentally ideal), the second being Kant's indirect argument in the Antinomy that the truth of transcendental realism leads to contradictions and that therefore, it cannot be true, concluding that its opposite—transcendental idealism—must thus be true.

the cosmopolitan idea of philosophy, under which, the elements of metaphysics fit harmoniously together and are in accordance with our interests, which affirms the truth of both the hypothesis and the idea. The idea then becomes the synthetic foundation, not of just metaphysics, which is only one of its elements, but of everything that falls under the scope of philosophy and the "essential ends of reason," including, of course, ethics. Thus, transcendental idealism is ultimately proven, from Kant's perspective, not only by its ability to answer the question "what can we know?" but also by its ability to ground a fully and consistent ethical theory, and by its ability to answer the question of what one can hope for.

This means that (1) Kant is a deeply unified and systematic thinker, and (2) Kant's advice to his readers to fully understand his views in the *Critique of Pure Reason* (or any of his books) is to read his works widely—not just the *Critique*, but his whole corpus—in an effort to gain a synthetic view of how all its pieces work together under the idea of philosophy as connected to

one's essential ends as a reasoner. It is a tall order. But if one is not ready for the commitment, one has only one's own "incoherent train of thought" to blame (*CPrR* 5:10). Though Kant may not insist that everyone who philosophizes must first comprehend his entire system, he does believe that one should properly philosophize only under the cosmopolitan idea of philosophy. Hegel famously said that his system represented the end of philosophy. Kant is less pompous; he thinks his system is only the beginning.⁴⁰

⁴⁰ I would like to thank Pierre Keller, Andrew Cutrofello, Richard Eldridge, Helmut Wautischer, and other members of the "Structuralism after Kant" panel of the Karl Jaspers Society of North America meeting at the Eastern Division American Philosophical Association conference in January 2020, for their thoughtful comments on a previous version of this essay. I would also like to thank Gabriele Gava and Stephen Palmquist for their insightful and helpful feedback on an earlier version of it.