

December 2014

Kant and the Neglected Alternative

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Abstract

In this work, I conduct a reconstruction and evaluation of the Neglected Alternative objection to Immanuel Kant's philosophy. Kant famously argues in the Transcendental Aesthetic section of the *Critique of Pure Reason* that space and time are subjective forms of human intuition, and the Neglected Alternative maintains that this argument is a failure. According to the Neglected Alternative, Kant completely overlooks the possibility that space and time are in some way *both* subjective and objective, and so Kant's conclusions about the nature of space and time are not justified by his arguments. This objection was first formulated very soon after the publication of the *Critique of Pure Reason* but is still subject to great controversy among Kant scholars.

I argue that the Neglected Alternative objection is unsuccessful. To do this, I provide a close analysis of Kant's key technical term "a priori intuition," and I reconstruct the work of two important critics of Kant: H.A. Pistorius and F.A. Trendelenburg. I then argue that in the Transcendental Aesthetic, Kant is justified in deriving the conclusion that space and time have nothing to do with things in themselves, or objects entirely independent of human cognition. Finally, I look at Kant's works as a whole and consider Kant's arguments that seem to rule out the possibility that things in themselves have a structure that is even similar to space and time.

Kant and the Neglected Alternative

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B.A. Lawrence University 2009

DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Philosophy

Syracuse University

December 2014

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Acknowledgments

I am extremely grateful for the assistance of many people in the process of writing this dissertation. Starting from the beginning, I thank Jennifer Keefe and Tom Ryckman for first teaching me how to do philosophy, and I thank Dan, Vitaly, and the other members of the Lawrence University Philosophy Club for good times and great discussions.

At Syracuse University, I have had the honor to learn from a number of outstanding professors and graduate students. I am especially indebted to Andre Gallois and Kris McDaniel for providing helpful comments on earlier drafts of multiple parts of this dissertation. Most importantly, I thank Fred Beiser for working with me throughout the entire dissertation process, for reading innumerable chapter drafts, and for his constant patience and support. I also thank the other graduate students at Syracuse, who have informally worked through the difficult *Critique* with me, in particular Jon Delmendo, Matt Koehler, and James Lee.

For comments on an ancestor of chapter one, I thank Dante Dauksz and an audience at the Syracuse Philosophy ABD workshop. For comments on various prior versions of chapter three, I thank Shane Callahan and audiences at the University of South Florida and the Eastern division of the North American Kant Society, as well as the editor and referees for the *British Journal for the History of Philosophy*. For comments on ancestors to chapter four, I thank Jake Greenblum, Colin McClear, and Nick Stang. I especially appreciate Jake Browning, who read drafts of multiple chapters. For assistance with the German language, I thank Tara Harvey, Karl Solibakke, Karina von Tippelskirch, and the financial assistance of the DAAD. I also thank Robert Clewis for providing research guidance.

Finally, I thank my family (Mom, Dad, Mark, and Lizzie) for their constant love and support, Ted and Brian for good times at 301 Fellows, and Adrienne, whose encouragement, love, and sense of humor have enriched every aspect of my life.

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Introduction

In just a few pages in the first section of the *Critique of Pure Reason*, called the “Transcendental Aesthetic,” Kant comes to the bold conclusion that space and time are merely products of our minds and do not in any way reflect the nature of the reality beyond the human mind. The boldness of this conclusion has generated importantly divergent views in the history of philosophy. On one pole is the reaction by Feder and Garve in their Göttingen Review, which dismisses Kant's transcendental idealism as being just another instantiation of implausible Berkeleyan idealism. But on the other hand, many philosophers were persuaded by Kant's arguments for the ideality of space and time and developed their own systems incorporating this Kantian insight. Such philosophers include Reinhold and Fichte, who constructed their systems not long after the publication of the first *Critique*, as well as Kuno Fischer and Arthur Schopenhauer, the latter of whom made these gushing remarks about the doctrine of space and time established in the Aesthetic:

The Transcendental Aesthetic is a work of such merit that it alone would be sufficient to immortalize the name of Kant. Its proofs have such a complete power of conviction that I number its propositions among the incontestable truths. They are also undoubtedly among those that are richest in results, and are therefore to be regarded as that rarest thing in the world, a real and great discovery in metaphysics.¹

But in addition to being bold and controversial, Kant's conclusion that space and time are ideal is also surprising. Kant argues that we necessarily experience objects in space and time; but what

¹ *The World as Will and Representation* (volume one), trans. E.F.J. Payne (New York: Dover, 1966), 437.

better way to explain this fact than to hold that objects are in a real space and time? Paul Guyer nicely expresses the counter-intuitiveness of Kant's conclusion:

Even if we know it a priori – indeed, just because we know it a priori – why isn't the necessity that our experience be spatial and temporal decisive evidence that whatever objects we do in fact experience are themselves in compliance with this restriction or are experienced at all just *because* they are spatial and temporal? Why doesn't the indispensable role of space and time in our experience prove the transcendental realism rather than idealism of space and time themselves?²

My focus in this dissertation is on the many attempts to reconcile Kant's claims about the mind-dependence of space and time in experience with the actual existence of space and time in mind-independent reality. This may at first sound like an incoherent or impossible task – something that is mind-dependent cannot also be mind-independent. However, as we will soon see, there are ways of developing the hypothesis that are not only coherent but pose important challenges to Kant's philosophy. We can illustrate how such a reconciliation between mind-dependence and independence might be possible, by considering the lively analogy used in the novel *Sophie's World* to explain Kant's view of space and time:

“Let us rather do a little experiment. Could you bring those glasses from the table over there? Thank you. Now, put them on.”

Sophie put the glasses on. Everything around her became red. The pale colors became pink and the dark colors became crimson.

“What do you see?”

“I see exactly the same as before, except that it's all red.”

“That's because the glasses limit the way you perceive reality. Everything you see is a part of the world around you, but now you see it is determined by the glasses you are wearing. So you cannot say that world is red even though you conceive it as being so.”

“No, naturally.”

“If you now took a walk into the woods, or home to Captain's Bend, you would see everything the way you normally do. But whatever you saw, it would all be red.”

“As long as I didn't take the glasses off, yes.”

2 *Kant and the Claims of Knowledge* (New York: Cambridge University Press, 1987), 349.

“And that, Sophie, is precisely what Kant meant when he said that there are certain conditions governing the mind's operation which influence the way we experience the world.”

“What kind of conditions?”

“Whatever we see will first and foremost be perceived as phenomena in time and space. Kant called 'time' and 'space' our two 'forms of intuition.' And he emphasized that these two 'forms' in our own mind *precede* every experience. In other words, we can know *before* we experience things that we will perceive them as phenomena in time and space. For we are not able to take off the 'glasses' of reason.”³

On this analogy, space and time are like glasses permanently strapped to our heads, and because of these glasses, we see the world as ordered in space and time. However, in the same way that wearing red-colored glasses does not preclude the real world from really being red-colored, the fact that we necessarily see the world in space and time does not preclude the real, absolutely mind-independent world from also existing in space and time.

The coherence of a possibility in which our subjective experience and mind-independent reality are both spatiotemporal has led many to hold that Kant makes a grave mistake in concluding that space and time belong exclusively to our mental faculties. They maintain that nothing that Kant says in the *Transcendental Aesthetic* rules out space and time from having a dual existence in both our experience and also independently of it. If this is correct, then Kant's system in the *Critique* is a complete failure. The *Transcendental Aesthetic* is supposed to provide the foundation of the system, and if the foundation fails, the rest of the system cannot get off the ground. Hans Vaihinger, one of the greatest Kant scholars, concluded after a thorough review of the *Transcendental Aesthetic* that this is indeed the case:

3 Jostein Gaarder, *Sophie's World A Novel about the History of Philosophy*, trans. Paulette Møller (New York: Berkley Books, 1994), 325-6. The glasses example, I believe, originates in H.J. Paton, *Kant's Metaphysic of Experience* (Vol. 1) (London: George Allen & Unwin, 1936), 168-9.

If Kant did not consider this issue [whether space could be both subjective and objective], then he has not merely made an enormous mistake on this one point, but rather his entire system wavers in the air. And indeed Kant passed over exactly this issue with silence. From the outset, his Aesthetic rests on an incomplete disjunction.⁴

My eventual goal is to show that this is not the case. Even though he does not make the argumentation completely explicit, Kant has strong resources in the Transcendental Aesthetic that can be employed to demonstrate the exclusive mind-dependence of space and time.

The debate over the relationship between Kant's philosophy and the possibility that space and time are in some way both subjective and objective predates the *Critique* and has recurred frequently to this day. Usually, the debate is framed in terms of an objection to Kant's philosophy that goes by the name of the “Neglected Alternative” but has also been called “Trendelenburg's gap” [*die trendelenburgische Lücke*], “Pistorius's gap” [*die pistorische Lücke*], and the “third possibility” [*die dritte Möglichkeit*]. I will refer to this objection, or cluster of closely related objections, with the term “Neglected Alternative.” The Neglected Alternative objection holds that Kant may establish that space and time are a priori and intuitive conditions for experience in the Transcendental Aesthetic, but this in no way entails that space and time have nothing to do with the objects outside of possible experience. Further, Kant is unjustified in making claims such as that “if we remove our own subject or even only the subjective constitution of the senses in general, then all constitution, all relations of objects in space and time, indeed space and time themselves would disappear, and as appearances they cannot exist in themselves, but only in us” (A42/B59).

In the chapters that follow, my focus is on developing the Neglected Alternative objection

⁴ Hans Vaihinger, *Commentar zu Kants Kritik der reinen Vernunft: Zweiter Band* [Commentar II] (Stuttgart: Union deutsche Verlagsgesellschaft, 1892), 142; my translation.

and evaluating it. I will begin with a close reconstruction of Kant's argument in the Transcendental Aesthetic, with a particular emphasis on interpreting Kant's difficult technical terminology. Then, I will present the work of H.A. Pistorius and F.A. Trendelenburg, who provide the strongest (though under-discussed) presentations of the Neglected Alternative objection. With this work as a guide, I will then present a novel, though completely Kantian, solution to the Neglected Alternative. Finally, I will consider relevant arguments by Kant that occur outside of the Transcendental Aesthetic but seem to place restrictions on how mind-independent reality could be structured and discuss what if any role these arguments should play in a response to the Neglected Alternative.

In the remainder of this introduction, I will give a brief history of the Neglected Alternative objection and then provide a somewhat detailed outline of the contents of the individual chapters that follow. But first, I need to say a brief word about the citation and translation practices I employ in this dissertation. Citations of the *Critique of Pure Reason* occur in accordance with the standard A and B pagination for the first (1781) and second (1787) editions, respectively. Citations of Kant's other works cite the volume and page number (Ak. volume:page) of the Academy edition, *Kants Gesammelte Schriften*.⁵ Since these citations take up little space and I will be citing Kant frequently, citations of Kant appear in-text, whereas citations of other authors appear in footnotes. Unless noted otherwise, translations of Kant are from the *Cambridge Edition of the Complete Works of Immanuel Kant*.⁶ In the case of other philosophers writing in a language besides English, I note when I employ another author's

5 Immanuel Kant, *Kants gesammelte Schriften*, ed. the Berlin-Brandenburg Academy of Sciences (Berlin: Walter de Gruyter, 1900-).

6 Immanuel Kant. *Cambridge Edition of the Complete Works of Immanuel Kant*, ed. Paul Guyer and Allen Wood (New York: Cambridge University Press, 1998-).

translation. Otherwise, all translations are my own. Finally, in reproduced quotations, I use square brackets to indicate my own editorial comments.

A Brief History of the Neglected Alternative

Most discussions of the Neglected Alternative begin by briefly referencing some of the philosophers who have previously presented the objection. In two of the chapters here, we will closely study two such philosophers (Pistorius and Trendelenburg), but I want to now present a brief overview of the entire history of the Neglected Alternative. The Neglected Alternative has been said to raise a “nest of difficulties.”⁷ Much of the difficulty stems from just trying to figure out exactly what the supposedly neglected alternative is supposed to be. The fact that this objection has such an unusually long and storied history has no doubt resulted in the objection becoming a tangled web of closely related lines of argument. I will work to develop clear objections from these threads, but first it may be helpful and of interest to some readers to give a brief overview of the entire history of the objection, since most extent treatments of the history of the objection merely mention a few episodes in its history. The history I present here is by no means exhaustive but rather attempts to give a broad overview of the entire history of the objection, while still focusing attention on the moments that are of particular note. However, readers so inclined can skip this section without serious detriment to the comprehensibility of the

7 Lorne Falkenstein, “Kant’s Transcendental Aesthetic,” in *A Companion to Kant*, ed. Graham Bird (Malden: Blackwell University Press, 2005), 150.

following chapters.

Pre-History

The Neglected Alternative has something of a “pre-history” in the responses to Kant's 1770 *Inaugural Dissertation*. This should come as little surprise, since the *Inaugural Dissertation* is the work in which Kant first introduces the claim that space and time are merely features of our faculty of sensibility and nothing beyond that. In the case of time, Kant boldly states that “time is not something objective and real, nor is it a substance, nor an accident, nor a relation. Time is rather the subjective condition which is necessary, in virtue of the nature of the human mind, for the coordinating of all sensible things in accordance with a fixed law. It is a pure intuition” (Ak. 2:400; about space, see Ak. 2:403-4). Of the philosophers to whom Kant sent this work, three wrote back with similar objections to his radical views on the nature of time and space. First, J.H. Lambert wrote Kant in October of 1770 and contends that Kant's argument for the claim that time is an a priori intuition is compatible with time being something real. In fact, Lambert thinks this is the correct view of time (Ak. 10:106-7). He asserts that Kant's view must allow for there to be changes in our experience, since our representations are experienced in a sequence, as they come to be and then pass away. Although these changes in representations are *about* the mind, these changes really exist and so time really exists. This point only applies to the case of time, since the existence of change only implies the existence of time and says nothing about how space might be. Lambert holds that space is *not* real, but he does hold that there exists a counterpart [*Simulachrum*] to space in reality, or the intelligible world (Ak.

10:108).

On Christmas of the same year, Moses Mendelssohn wrote to Kant with an objection very similar to Lambert's. Mendelssohn argues that time must be something real, because succession is real. To support this line of thought he appeals to the point that finite minds exist as both subjects and objects for other minds, which indicates that we need to view the succession of representations in a mind as an objective fact. Further, Mendelssohn explicitly defends the Leibnizian view of time against Kant's objections. According to Mendelssohn, the Leibnizian holds that time has both subjective and objective elements, where the objective element is real succession and the subjective element is the perceived continuity in the representations (Ak. 10:115-6). Finally, also in December of the same year, J.G. Sulzer wrote to Kant and also defended the Leibnizian view of time (as well as space). He claims that his sole point of disagreement with Kant is that he finds Leibniz's conception of space and time to be more plausible than Kant's. On Sulzer's characterization of Leibniz's view "time and space...are constructed concepts which presuppose the concept of order" (Ak. 10:112).

The key point that echoes throughout these letters is that Kant has not sufficiently argued against the possibility that time is in some sense both subjective and objective. Our sensibility may force us to always perceive objects in time, but we can know that change really exists, which tells us that time also really exists. However, this is not yet the same sort of objection that we find in Pistorius, Trendelenburg, and the other advocates of the Neglected Alternative. The Neglected Alternative does not appeal to the relationship between change and time but instead argues that there is no necessary link between space and time originating in a priori intuitions and being completely subjective; thus, the Neglected Alternative applies equally to Kant's views

of both time and space.

In the *Transcendental Aesthetic*, Kant explicitly addresses Lambert and Mendelssohn's objections about time (A36ff/B53ff). His response to these objections is to agree that time is something real but to hold that this should be understood to mean that time exists as the “real form of inner intuition,” not something over and above this (A37/B53).⁸ However, Kant's argumentation earlier in the *Aesthetic* is where the issue of the Neglected Alternative truly begins. In just a few pages at the beginning of the *Aesthetic*, Kant attempts to establish that space and time originate in a priori intuition and then immediately concludes that space and time only exist as structures grounded in our sensibility. This move is the primary focus of the Neglected Alternative and the topic of the first chapter of this dissertation.

*Pistorius and his Contemporaries*⁹

The first time the Neglected Alternative was raised was in 1786 in H.A. Pistorius's review of Johann Schultze's pro-Kant “Erläuterungen über des Herrn Professor Kant Kritik der reinen Vernunft” [“Schultze Review”].¹⁰ The exact nature of Pistorius's objections will be discussed in the second chapter, and I will postpone a detailed discussion of Pistorius till then. For now, we should note that Pistorius criticizes Kant from a perspective that is both Leibnizian and

8 For discussion of Lambert, Mendelssohn, and Kant's response, see Ralf Bader, “Self-knowledge in §7 of the *Transcendental Aesthetic*,” in *Akten des XI. Internationalen Kant-Kongresses*, ed. Stefano Bacin, Alfredo Ferrarin, et al. (Berlin: Walter de Gruyter, 2013), 531-40; Lorne Falkenstein, *Kant's Intuitionism* (Toronto: University of Toronto Press, 1996), 334-55; and James Van Cleve, *Problems from Kant* (New York: Oxford University Press, 1999), 52-61.

9 Vaihinger's *Commentar II* has an especially thorough discussion of this time period in its own discussion of the history of the Neglected Alternative. See p. 311-22.

10 *Allgemeine deutsche Bibliothek* 66, (1786): 92-123.

empiricistic. His primary contention is that Kant's argument in the Aesthetic leaves open the possibility that our a priori intuitions of space and time could have some sort of connection or similarity to things in themselves, even though things in themselves are not spatial or temporal. In this way, space and time could be both subjective and objective – not completely subjective as Kant states.

Pistorius further develops his objections in subsequent reviews, but in the next few years a number of other philosophers presented versions of the Neglected Alternative though in far less detail than Pistorius. First in his *Prüfung der Mendelssohnschen Morgenstunden*, L.H. Jakob considers (and then rejects) the view that space and time are the forms of both subjective experience and objective reality. Jakob, a professor at Halle, was a young and ardent defender of Kant in the 1780s, and he produced this response to Mendelssohn with the blessing of the sage of Königsberg himself.¹¹ Pistorius reviewed Jakob's *Prüfung* and contrasts his views on space and time with those of Jakob.¹²

During his discussion of the faculty of sensibility, Jakob has his interlocutor retort that space very well may be a necessary condition of appearances for us, but there could exist a harmony between our form of appearances and the form of things in themselves, such that space is *also* the form of things in themselves.¹³ Jakob's primary response is to immediately dismiss this suggestion, because it is a mere hypothesis, and he is only interested in what can be apodictically proven. Interestingly, Jakob also appeals to theological problems with holding that

11 See Jakob's 1786 letter to Kant (Ak. 10:435-38) as well as Kant's reply (Ak. 10:450-1). Kant also wrote a brief note at the beginning of Jakob's *Prüfung* (Ak. 8:149-56). Though Kant was happy to let Jakob defend his philosophy, Kant himself wanted to address a point that Mendelssohn makes about the thing in itself.

12 See my chp. 2, page 69. On the spelling of Schultze's and Jakob's names, also see chp. 2 footnote 4.

13 *Prüfung* (Leipzig: Johann Samuel Heinsius, 1788), 26-7.

things in themselves are in space and time, which anticipate Kant's own theological argument for transcendental idealism in the second edition of the *Aesthetic*.¹⁴

With the number of publications about Kant's *Critical* philosophy swelling, in 1788 two additional philosophers endorsed the Neglected Alternative as an important objection to Kant's philosophy. Adam Weishaupt, now primarily remembered for founding the Bavarian Illuminati, published a short book evaluating Kant's views of space and time (*Zweifel über die Kantischen Begriffe von Zeit und Raum*), which was reviewed by Pistorius in 1790.¹⁵ Weishaupt carefully sketches the possible ways space might be, and after concluding that space must be an accident or relation, he lays out three possibilities: it is either merely subjective, it is either merely objective, or it is partially subjective and partially objective. Weishaupt eventually steers a middle course and endorses the last alternative and concludes that most of what Kant says about space and time is correct; his main mistake is inferring that space and time are merely subjective.¹⁶ The way Weishaupt spells out this last alternative is at points remarkably similar to Pistorius's own view. He holds that space and time are relations between the mind and things in themselves, and with the Leibnizians, he asserts that space is a “confused cognition of the coexistence of things outside of us” and time a “confused cognition of the successive alteration of a thing.”¹⁷ In other words, coexistence and alteration are objective properties of things in themselves, and we represent these properties confusedly through space and time.

14 B71-2. For discussion, see my chp. 5, 179ff.

15 Adam Weishaupt. *Zweifel über die Kantischen Begriffe von Zeit und Raum* (Nürnberg: Grattenauerische Buchhandlung, 1788); H.A. Pistorius, “1) Zweifel über die Kantischen Begriffe von Zeit und Raum, von Adam Weishaupt...” *Allgemeine deutsche Bibliothek* 93, (1790): 437-58. For discussion of Weishaupt, see Frederick Beiser, *The Fate of Reason* (Cambridge: Harvard University Press, 1987), 186-8.

16 *Zweifel*, 111.

17 *Ibid*, 105.

The other advocate of the Neglected Alternative in 1788 was J.G.E. Maass in his “Über die transscendentale Aesthetik,” published in Eberhard's *Philosophisches Magazin*.¹⁸ Maass's formulation of the objection is different from the way Pistorius and Weishaupt put it, and it anticipates in some ways how Trendelenburg will present the objection. Maass argues that one failure in Kant's Aesthetic is that it unjustifiably claims that space and time are exclusively subjective, because Kant does not rule out the possibility that space and time correspond to something in “things outside of representation.”¹⁹ If such a correspondence were to exist, space would be both subjective and objective.

This time period was one in which the Critical philosophy was under attack from a number of different directions, and we do not know the extent to which Kant was aware of the objections by the previous philosophers. Interestingly, we do know that at least one form of the Neglected Alternative was brought directly to Kant's attention. In 1790, J.G. Kiesewetter wrote to Kant to tell him about an anti-Critical essay he heard delivered by Christian Gottlieb Selle. Kiesewetter tells Kant that Selle's main contention is that

even assuming that you had proved space and time to be forms of our sensibility, you could not have shown that they were *only* forms of sensibility, since it is still *possible* to imagine them to belong to things in themselves, a possibility that you are in no position to deny, in view of your claim that we can know nothing of things in themselves...In his opinion, space and time are subjectively necessary conditions of our intuitions, but there are also properties of things in themselves that correspond to them (Ak. 11:157-8).²⁰

18 Band 1, 2. Stück, 117-49. For a brief discussion of Maass on the Neglected Alternative see Vaihinger, *Commentar II*, 312.

19 “Über die transscendentale Aesthetik,” 121.

20 Selle's essay was eventually published in 1792 as “De la Realite et de l'Idealite des objets de nos connaissances” by the Berlin Academy. Pistorius discusses Selle's philosophy at length in a review of a book by C.G.E. Schmid. See “Schmid, Karl Christ...” *Allgemeine deutsche Bibliothek* 88, (1789): 103-22.

Kiesewetter goes on to dismiss Selle's objections. He turns the tables by asking, skeptically, how Selle is going to show that space and time pertain to things in themselves. But this appeal to our ignorance of things in themselves is a dangerous move, since it seems to concede Selle's point that Kant's doctrine of the unknowability of things in themselves leaves Kant unable to claim the exclusive subjectivity of space and time.²¹ In any case, Kant never followed up with Kiesewetter on this point.

The Neglected Alternative charge continued to echo into the early 1790s.²² Still Kant never responded to his numerous critics on this point. Eventually, the controversies surrounding the Kantian philosophy at the end of the eighteenth century focused on other issues, and it would be seventy years before the Neglected Alternative was revived and the intensity of debate over the objection reached its highest peak.

The Trendelenburg and Fischer Streit

The Neglected Alternative's primary historical association is with the dispute in the 1860s and 70s between Friedrich Adolf Trendelenburg and Kuno Fischer. The immediate cause of the dispute was Trendelenburg's harsh dismissal of Fischer's dialectical foundation for philosophy. This led Fischer to attack Trendelenburg's system of philosophy on multiple fronts, but eventually the debate narrowed to just the question of whether Kant anywhere demonstrates the exclusive subjectivity of space and time. Trendelenburg argued that Kant had failed to demonstrate it, and Fischer held that Kant had succeeded. Trendelenburg was motivated by the

21 Cf. Vaihinger, *Commentar II*, 316. See also my chp. 4, 160ff.

22 See, for example, Brastberger's *Untersuchungen über Kants Kritik der reinen Vernunft* (Halle: Johann Jacob Gebauer, 1790) and discussion of it in Vaihinger, *Commentar II*, 317.

view that space exists both subjectively in the mind but in some way also exists in mind-independent reality. Trendelenburg's philosophy, especially his Neglected Alternative objection, as well as some of Fischer's criticisms will be considered in the third chapter. I will not present a summary of the evolution of their debate, since it is quite long and has already been done well elsewhere.²³

As Vaihinger has documented, if we add up the relevant works by Trendelenburg, Fischer, and the philosophers who published immediate reactions to the dispute, we have on our hands over fifty books and pamphlets.²⁴ This dispute and the issues involved became an important focus of the development of neo-Kantianism at the time. Here, I will briefly discuss two philosophers who provide important, though polar opposite, developments of the Kantian philosophy after the Trendelenburg/Fischer *Streit*. These philosophers are Hermann Cohen and Eduard von Hartmann. Hermann Cohen entered the dispute in 1871 with a peculiar pair of works. First, Cohen published the essay “Zur Controverse zwischen Trendelenburg und Kuno Fischer,” which largely tiptoes around the heart of the dispute: whether Trendelenburg had in fact demonstrated that there is an important logical gap in Kant's argument for transcendental idealism. Instead, Cohen summarizes the debate and focuses on showing the deficiencies in Kuno Fischer's argument, especially the fairly obvious fact that Fischer's presentation of Kant's philosophy is not completely faithful to what Kant actually said. However, Cohen quickly made up for the shortcomings of this essay with his book, *Kants Theorie der Erfahrung*, published in the same year. In this book, Cohen takes himself to be reconstructing Kant's theoretical philosophy with a particular focus on the new concept of experience discovered by Kant.²⁵

²³ See the references in chp. 3, footnote 35.

²⁴ *Commentar* II, 545-8.

²⁵ *Kants Theorie der Erfahrung* (Berlin: Ferd. Dümmler, 1871), iii and 3.

Especially important for our purposes, Cohen claims that this new concept of experience is grounded in Kant's revolutionary views of space and time.²⁶

Much of what Cohen writes in the first half of this work reflects the issues at stake in the Trendelenburg/Fischer dispute. Cohen frequently worries about the status of the a priori elements that provide the basis for experience – are they subjective or objective? The answer is that these elements are most fundamentally classified as transcendental, and the transcendental is completely prior to the distinction between subjective and objective; in fact, we must redefine these terms in light of Kant's transcendental philosophy and consider the old dualism to be *aufgehoben*.²⁷ What then of Trendelenburg's objection? Cohen's characterization of the transcendental makes Trendelenburg's objection seem ill-formed in the first place; for Cohen, the term “objective” denotes particular kinds of processes produced by sensibility and understanding – not something outside of experience in the things in themselves, as Trendelenburg believed. But Cohen goes further than any other philosopher to destroy Trendelenburg's objection. Not only does Cohen devote an entire chapter to closely analyzing and refuting the work of his former teacher, but in the end, Cohen argues that things in themselves simply do not exist.²⁸ The idea of a noumenon or thing in itself is completely negative, and we have no need to countenance a “positive” thing in itself, as an actual object that exists completely independently of us.²⁹ There can be no question that if Cohen is correct, the Neglected Alternative objection is a complete failure, but viewed with pre-Critical lenses, Cohen has eliminated the Neglected Alternative by leading us into an extreme subjectivism in which all of the elements of knowledge come from the

26 Ibid, 4.

27 Ibid, 53-4.

28 See my chp. 4, p. 169 for my points of agreement with Cohen in his chapter on Trendelenburg.

29 *Kants Theorie der Erfahrung*, 252-3.

subject.

Also in 1871, Eduard von Hartmann published a book that developed the Kantian philosophy in a direction completely antithetical to Cohen's. The book was titled *Das Ding an sich und seine Beschaffenheit* and was revised twice with its third edition appearing in 1885 under the new title *Kritische Grundlegung des Transcendentalen Realismus: Eine Sichtung and Fortbildung der erkenntnisstheoretischen Principien Kant's*. The title reveals a shocking project: the creation of a transcendental realist epistemology derived from Kant - the very philosopher who coined the term "transcendental realism" to describe what his system opposes.³⁰ In the preface to the 1885 version, Hartmann admits that for the past fifteen years his book has had the misfortune of "swimming against the current" of neo-Kantianism, and it is therefore unsurprising that his view has received scant attention.³¹ Hartmann's self-conception is not unlike Cohen's; Hartmann tries to show us where Kant's philosophy should have led, had Kant consistently worked out the starting points of his own system.³² The result is a system of "critical realism" in which we accept the existence of a transcendently real subject, and there is no problem with transcendently real objects affecting our sensibility. Most importantly, Hartmann endorses Trendelenburg's objection and holds that space, time, and the categories structure both appearances and things in themselves.

Cohen and Hartmann thus represent two somewhat extreme reactions to the Trendelenburg/Fischer dispute. Cohen responds with an interpretation of Kant that escapes Trendelenburg's objection by removing the thing in itself entirely and interpreting the terms

³⁰ Perhaps this project is somewhat less shocking in light of the results of the fifth chapter of this dissertation, where I discuss Kant's own claims about the nature of things in themselves.

³¹ *Kritische Grundlegung des Transcendentalen Realismus*, in *Eduard von Hartmann's Ausgewählte Werke* (Band I) (Leipzig: Wilhelm Friedrich, 1885), V.

³² *Ibid*, 3.

“subjective” and “objective” within the sphere of a transcendental philosophy that is grounded entirely in the a priori conditions of human experience. Hartmann, on the other hand, responds by accepting Trendelenburg's criticisms and presents a Trendelenburgian Kant who accepts the dual subjectivity and objectivity of space in exactly the way that Trendelenburg argues that Kant should.

The end of the 19th Century – the Present

The next turning point in the fate of the Neglected Alternative objection is Vaihinger's discussion of it in the second volume of his commentary [*Commentar*] on the first *Critique*. By this time, the Trendelenburg/Fischer *Streit* had begun to sink into the history of philosophy, and the Neglected Alternative no longer seemed like a central issue for developing systematic philosophy; it was now squarely an issue of Kant scholarship. Vaihinger thoroughly cataloged and discussed previous work on the Neglected Alternative and argued that Trendelenburg and Pistorius had successfully identified two similar, though distinct, lacunae in Kant's argument in the Transcendental Aesthetic.³³ Thus, in Vaihinger's judgment, the Neglected Alternative in two manifestations is a successful objection to Kant's argument for the exclusive mind-dependence of space and time. Vaihinger greatly influenced Norman Kemp Smith, who presented what would become for many years the canonical English translation of the first *Critique*, as well as a commentary on the *Critique*. Kemp Smith agreed with Vaihinger's judgment concerning the Neglected Alternative in a very brief discussion in this commentary.³⁴

33 Vaihinger is however very critical of Trendelenburg's presentation of his own objection. For Vaihinger's evaluation of the Neglected Alternative, see *Commentar* II, 134-51.

34 *A Commentary on Kant's 'Critique of Pure Reason'* (London: Macmillan and Co., 1918), 113-

In a 1966 article titled “Recent Work on Kant,” M.J. Scott-Taggart declared that Vaihinger and Kemp Smith gave the “final statements” on the Neglected Alternative and that Trendelenburg's “position is almost that of an unquestionable truth.”³⁵ Indeed, the important mid-century discussions of Kant's views of space and time by Christopher Garnett, Martin Heidegger, and Peter Strawson omit the Neglected Alternative entirely.³⁶ Scott-Taggart predicted that “this controversy could well come up for reappraisal,” and indeed it soon did.³⁷ Henry Allison's 1976 article “The Non-spatiality of Things in Themselves for Kant” attempts to provide a complete exoneration of Kant against the Neglected Alternative charge. Over the following decades, as interest in the Transcendental Aesthetic began to increase, over a dozen articles and book chapters have created a new debate over the success of the Neglected Alternative. From this debate little consensus about the success of the Neglected Alternative has emerged. Since 2007 alone, there have been at least three articles providing new defenses of Kant against the Neglected Alternative and two articles reinforcing the Neglected Alternative against Kant.³⁸

My dissertation contributes to the debate in the contemporary literature over the

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35 “Recent Work on Kant,” *American Philosophical Quarterly* 3, (1966): 184.

36 Christopher Garnett, *The Kantian Philosophy of Space* (New York: Columbia University Press, 1939); Martin Heidegger, *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana University Press, 1997) [originally published in 1929]; Peter Strawson, *The Bounds of Sense* (New York: Methuen, 1966).

37 “Recent Work on Kant,” 184.

38 In favor of Kant, see Graham Bird, “The Neglected Alternative: Trendelenburg, Fischer and Kant” in *A Companion to Kant*, 486-99; Desmond Hogan, “Three Kinds of Rationalism and the Non-Spatiality of Things in Themselves,” *Journal of the History of Philosophy* 47, (2009): 355-82; and Tobias Rosefeldt, “Subject-Dependence and Trendelenburg's Gap,” in *Akten des XI. Internationalen Kant-Kongresses*, ed. Stefano Bacin et al. (de Gruyter, 2013), 739-48. In support of the Neglected Alternative objection, see Peter Herissone-Kelly, “The Transcendental Ideality of Space and the Neglected Alternative,” *Kant-Studien* 98, (2007): 269-82 and Edward Kanterian, “The Ideality of Space and Time: Trendelenburg Versus Kant, Fischer and Bird,” *Kantian Review* 18, (2013): 263-88.

Neglected Alternative objection, while also returning to the essential issues that motivated the objection in the eighteenth and nineteenth centuries. The recent debate has focused specifically on the logical validity of Kant's argument for the exclusive mind-dependence of space and time in the Transcendental Aesthetic; this has involved assessing whether the evidence that Kant presents in the Transcendental Aesthetic entails the conclusion that space and time are completely mind-dependent. Thus, the focus has been on a largely “internal” assessment of Kant's Transcendental Aesthetic – whether it has the resources to succeed on its own terms. However, I will also consider the crucial motivations of Pistorius and Trendelenburg for posing the Neglected Alternative in the first place and present potential responses available to Kant. In other words, the history of the Neglected Alternative is an indication of other, often larger, issues with Kant's philosophy, and my dissertation will begin to address these too.

Overview of Chapters

Chapter 1: I begin with a consideration of Kant's argument at the beginning of the Transcendental Aesthetic, which I call the “Argument for the Exclusive Mind-Dependence of Space.” This is where Kant first presents the controversial conclusion that space and time are completely mind-dependent, and thus this argument is the focal point of the Neglected Alternative objection. After presenting Kant's argument, I give a general statement of the Neglected Alternative objection. However, in order to make any sense of Kant's argument, we

need to investigate Kant's conception of a priori intuition. I present an interpretation of a priori intuition according to which a priori intuitions make possible the formal structures to which a priori intuitions refer. In addition to making sense of Kant's argument in the *Transcendental Aesthetic*, I show that my interpretation of a priori intuition fits with important claims that Kant makes elsewhere in the *Critique*.

Chapter 2: To better grasp what the Neglected Alternative objection is, I present a close study of the first philosopher to develop the objection in any detail: Hermann Andreas Pistorius. Pistorius reviewed many of Kant's works and much literature on Kant in the 1780s and into the 1790s, and his reviews provide two different ways of developing the Neglected Alternative. On the one hand, Pistorius provides a Leibnizian-motivated version of the Neglected Alternative that suggests that our representation of space could express non-spatial properties of things in themselves. But at the same time, Pistorius attacks Kant from a more "empiricistic" perspective and surprisingly contends that much of what Kant argues in the *Transcendental Aesthetic* is consistent with the possibility that some features of space are caused by things in themselves.

Chapter 3: The other main advocate of the Neglected Alternative, and the one most frequently associated with it, is Friedrich Adolf Trendelenburg. Using his dispute with Kuno Fischer as a guide, I reconstruct Trendelenburg's Neglected Alternative objection to Kant. I argue that Trendelenburg holds that there are two kinds of possibilities that Kant overlooks. The first is that our representation of space has validity for or applies to things in themselves, in addition to having validity for appearances. The second is the existence of an actual, transcendentally real

space in addition to the space that orders appearances. At the end of the chapter is a brief appendix on an important objection by Trendelenburg that concerns Kant's philosophy of geometry and the nature of necessity.

Chapter 4: Employing the results of the first three chapters, I present a new solution to the Neglected Alternative. This primarily involves defending two key premises in Kant's Argument for the Exclusive Mind-Dependence of Space. First, I show how Kant supports his premise that we cannot have a priori intuitions of anything mind-independent and then demonstrate that this eliminates versions of the Neglected Alternative from Pistorius and Trendelenburg. I then address Kant's move to the conclusion that space is not mind-independent. I defend this inference by considering a number of hypotheses on which space is said to be in some way both mind-dependent and mind-independent and arguing that Kant is able to exclude such possibilities. After summarizing my overall defense of Kant against the Neglected Alternative, I consider other defenses of Kant in the literature and argue that my own defense should be preferred, while acknowledging previous philosophers with whom I am in partial agreement.

Chapter 5: One important feature of my solution to the Neglected Alternative is the claim that Kant's main argument in the Transcendental Aesthetic does not commit him to any view about how mind-independent reality might or might not be structured. However, it is not so clear that Kant maintains this agnosticism later in the Aesthetic, later in the *Critique*, and elsewhere in his Critical corpus. In this last chapter, I investigate the passages in which Kant seems to exclude the existence of certain kinds of mind-independent structures that share core properties with space

and time. I begin with Kant's practical arguments concerning the nature of God and freedom and show that these arguments place restrictions on whether a transcendently real structure could be infinite or impose necessary laws on the objects that occupy the structure. I then consider the arguments within his theoretical philosophy that aim to show that all transcendently real objects cannot be infinitely divisible and therefore must be mereological simples. Closely related to this, I also consider Kant's views on the nature of transcendently real relations and end with a brief discussion of Kant's claim that God's omnipresence provides an analogue for space in transcendental reality. My conclusion is that even though it may be tempting to supplement a defense against the Neglected Alternative with some of these aspects of Kant's philosophy, my own defense squarely rooted in the resources of the Transcendental Aesthetic should be the primary argument against the Neglected Alternative and is all that is necessary to defeat the Neglected Alternative.

Chapter One

The Argument for the Exclusive Mind-Dependence of Space

The Neglected Alternative objection in its various guises has focused primarily on Kant's Transcendental Aesthetic. Therefore, the Aesthetic is our starting point, and the goal of this chapter is to achieve an understanding of what it is that Kant argues for and what evidence he appeals to in order to support his argument. Some of the details and difficult interpretive questions will have to be addressed later, after we discuss the versions of the Neglected Alternative, and so this chapter will present merely the broad contours of Kant's argument. We will focus specifically on Kant's vexing claim that we have an a priori intuition of space.¹

The Aesthetic is the first non-introductory section of the *Critique*, and it provides the cornerstone of Kant's theoretical philosophy. However, the preceding Preface and Introduction give us surprisingly little background for understanding the Aesthetic. Kant throws the reader into the Aesthetic with the following explanation:

All that seems necessary for an introduction or preliminary is that there are two stems of human cognition, which may perhaps arise from a common but to us unknown root, namely sensibility and understanding, through the first of which objects are given to us, but through the second of which they are thought. Now if sensibility were to contain a priori representations, which constitute the condition under which objects are given to us, it will belong to transcendental philosophy. The transcendental doctrine of the senses will have to belong to the first part of the science of elements, since the conditions under which alone the objects of human cognition are given precede those under which those objects are thought (A15-16/B29-30).

¹ I consider just the case of space, since Kant thinks that completely parallel arguments can be made in the case of time.

The Aesthetic investigates sensibility, one of the two “stems” of human cognition, and the stem through which objects are given to us. Kant hints that he will specifically be interested in whether any a priori representations belong to sensibility. The answer, of course, is that there are two fundamental a priori sensible representations: space and time.

Our consideration of the a priori intuition of space will evolve in a few steps. In the first section, we will give an overview of the main argumentation of the Aesthetic and develop a statement of the Neglected Alternative objection. In the second section, we will consider the notion of a priori intuition and discuss some of the problems that arise from the term. In the third section, we will develop an account of a priori intuition, provide textual support for this account, and consider objections. In the fourth section, we will return to the argument of the Aesthetic and provide an interpretation of the argument that coheres with Kant's epistemic commitments elsewhere in the *Critique* and is based on the previous discussion of a priori intuition.

1.1. A First Overview of the Argument

The primary argumentation in the Aesthetic occurs in the extraordinarily dense pages of the first half of the chapter. It begins with definitions of terms in rapid succession, and the most important of these is the first, the definition of “intuition.” Kant begins the Aesthetic like this: “In whatever way and through whatever means a cognition may relate to objects, that through which it relates immediately to them, and at which all thought as a means is directed as an end, is

intuition” (A19/B33). Intuition involves an immediate relation between the subject and object. Kant seems to view this immediacy as a primitive characteristic, but drawing on claims Kant makes elsewhere, we can illustrate its meaning negatively. First, intuitions do not rely on any other representation in order to relate to their objects. In other words, the relation between the mental act of intuition and the intuited object is not mediated by any other representation (A68/B93). Second, intuitions do not relate to an object in virtue of that object having a general property or “mark,” “which can be common to several things” (A320/B377). This is because reference in virtue of general properties leaves open the possibility that the representation refers to multiple objects, which Kant holds is impossible for intuition. However, Kant also directly links a crucial positive quality to the immediacy of human intuition. The immediate relation between our intuition and object must occur through the object being given to us, and an object can be given “only if it affects the mind in a certain way” (A19/B33). Thus an intuition, at least for humans, is an immediate representation of an object that is made possible by the object affecting us.

Though Kant may seem to be defining the term “intuition” as if it is a new technical term, it appears both in his earlier work and in philosophy prior to Kant. In the *Inaugural Dissertation*, Kant gives a similar characterization of our faculty of sensibility as the faculty through which objects are given to us and also holds that such objects are given by means of affection (Ak. 2:392). Kant goes on to assert that intuition is a kind of cognition that in humans only pertains to sensibility, and he characterizes intuitions as both relating to their objects immediately and as singular representations (Ak. 2:396).² But the sensibility/understanding distinction traces back to

2 Kant shifts his terminology from Latin to German between the *Inaugural Dissertation* and *Critique*. In the *Inaugural Dissertation*, Kant uses the term “*intuitus*” which becomes “*Anschauung*” in the *Critique*.

the medievals and ultimately to Aristotle.³ Intuition, specifically, played an important role in medieval philosophy where God's knowledge was characterized as intuitive, because God is said to have immediate access to the objects of knowledge and does not arrive at them through discursive reasoning. By the time of Kant's writings, the tendency had become to combine the faculties; crudely, the rationalists absorbed sensibility into understanding, and the empiricists absorbed understanding into sensibility. So although Kant's division of the faculties and some of his terminology may have seemed antiquated, they would not have been altogether foreign or novel to his audience. Kant will try to justify keeping the faculties separate by showing that the sensibility and understanding each have distinct a priori representations and thus different roles in cognition.⁴

Continuing his list of definitions, Kant goes on to say that appearances are the objects to which our empirical intuitions refer. Our intuitions of appearances are complex structures that have both a matter and a form. The matter must be given a posteriori, but the form, Kant asserts, can be found in the mind a priori. This form of appearance is what Kant intends to isolate and analyze in the Aesthetic. He proposes a process that begins by removing everything that the faculty of thought, the understanding, contributes to experience. We then remove sensation, the matter of appearance, until only the form of appearance, which Kant also calls a “pure intuition” remains. Space and time are said to be these pure intuitions, the forms of our intuitions of appearances.

3 Kant hints at the origins of his appropriation of the sensibility/understanding distinction in the footnote at A21/B35.

4 For an excellent discussion of Kant's use of the sensibility/understanding distinction and his borrowing of technical terms, see Lorne Falkenstein, *Kant's Intuitionism*, pages 28- 35 and 41-44. On the topic of justifying the division of the faculties, see Frederick Beiser, *German Idealism: The Struggle against Subjectivism 1781-1801* (Cambridge: Harvard University Press, 2002), 81-5.

The main task of the next few pages of the Aesthetic is justifying this last claim; Kant must demonstrate that space and time are a priori forms of intuition and thus necessary conditions for the experience of objects. He begins with space, which will be our focus as well, but first, after a general discussion of the role of space and time in experience, Kant raises the issue of the ontological status of these structures.

Now what are space and time? Are they actual entities [*wirkliche Wesen*]? Are they only determinations or relations of things, yet ones that would pertain to them even if they were not intuited, or are they relations that only attach to the form of intuition alone, and thus to the subjective constitution of our mind, without which these predicates could not be ascribed to anything at all? (A22-3/B37-8)

In this passage, Kant entertains four possible ways space and time might be. Either they are 1) “actual entities,” presumably things that exist independently of our cognitive activity, 2) determinations (properties) or collections of determinations of independently existing things, 3) relations or systems of relations pertaining to independently existing things, or 4) they pertain exclusively to our minds - specifically our way of intuiting objects. The first three possibilities are ones in which space is mind-independent.⁵ On the last alternative, space is mind-dependent; this is the view that Kant will endorse and is the controversial conclusion targeted by advocates of the Neglected Alternative objection. Even at this early point in our discussion, it is important to see that Kant's characterization of the possible ways space may be leaves little room to accuse

5 Kant does not say which, if any, philosophers actually hold these views. The view that space is a relation was famously held by Leibniz and the Wolffians. Similarly, the view that space is an actual entity was most famously held by Newton. For speculation on whom Kant references in this passage, see Henny Blomme, “The Completeness of Kant's Metaphysical Exposition of Space,” *Kant-Studien* 103, (2012): 142; Lorne Falkenstein, *Kant's Intuitionism*, 147; Hans Vaihinger, *Commentar* II, 132; and Marcus Willaschek, “Der transzendente Idealismus und die Idealität von Raum und Zeit. Eine 'lückenlose' Interpretation von Kants Beweis in der 'Transzendentalen Ästhetik,’” *Zeitschrift für philosophische Forschung* 51, h. 4 (1997): 538.

him of overlooking an alternative. The first three possibilities are ones in which space exists independently of us, and the last possibility is one in which space is completely mind-dependent. On a first glance at least, the first three possibilities seem consistent with space belonging both to appearances and having an existence independently of appearances. So, to establish the exclusive mind-dependence of space, we should expect Kant to rule out these hypotheses in which space has a mind-independent nature.

However, somewhat surprisingly, Kant abandons this strategy of elimination as soon as he presents it.⁶ Kant instead starts a new project, which specifically addresses how it is that we *cognize* space. Kant's new goal is to show that the most fundamental cognitive access we have to space is a pure, a priori intuition, or more in Kant's phrasing, that our original representation of space is a pure, a priori intuition. After showing this, Kant will immediately and directly draw the conclusion stated in the last quoted passage above: that space is something that pertains to the “subjective constitution of our mind.”

The two subsections, the Metaphysical and Transcendental Expositions (hereafter “the Expositions”), are where Kant tries to prove that our representation of space is most fundamentally a pure, a priori intuition. Though the details of these arguments will be important later when we try to resolve the Neglected Alternative, for now we need only mention the features of space to which Kant appeals to show that space is an a priori intuition. In the first two Metaphysical Expositions, Kant tries to establish that our knowledge of space is a priori.⁷ In the second of these, Kant appeals to the necessity of our representation of space, specifically our

⁶ Cf. Falkenstein, *Kant's Intuitionism*, 147.

⁷ I follow the terminology and numbering introduced in the B edition. For example “first Metaphysical Exposition” refers to the first numbered paragraph under the heading “Metaphysical Expositions of this Concept.”

inability to represent a lack of space. His point is that the representation of space is a necessary condition for the representation of objects outside of us. In the third Exposition, Kant appeals to the singularity of space to support the intuitive nature of our representation of space. The singularity of space means not only that we can only represent one space but that all of the parts of space are dependent on the whole of space. Elsewhere Kant describes such a mereological structure as a *totum*.⁸ Next, Kant raises the related point that space is represented as an infinite structure. Specifically, our representation of space contains in itself an infinite number of representations. Finally, in the Transcendental Exposition, Kant argues that the a priori and intuitive nature of space can explain our cognition of geometry as a certain and necessary science.

Immediately after these Expositions, Kant gives the argument that is the focal point of the Neglected Alternative, under the heading “Conclusions from the above concepts” (hereafter “the Conclusions”).

Space represents no property at all of any things in themselves nor any relation of them to each other, i.e., no determination of them that attaches to objects themselves and that would pertain even if one were to abstract from all subjective conditions of intuition. For neither absolute nor relative determinations can be intuited prior to the existence of the things to which they pertain, thus be intuited a priori (A26/B42).

We see that the conclusion that space does not represent anything pertaining to mind-independent reality is supported by a claim that Kant tries to establish in the Expositions – that we have an a priori intuition of space. Building on this conclusion, Kant goes on to state that “space is nothing other than merely the form of all appearances of outer sense, i.e., the subjective condition of

⁸ This use of “*totum*” is introduced later in the *Critique*, in the second Antinomy (A438/B466). He also sometimes uses the term “*totum analyticum*” synonymously with “*totum*.” See *Reflexion* 3789 (Ak. 17:293).

sensibility, under which alone outer intuition is possible for us” (ibid). Thus, Kant has established a conclusion about the ontological status of space, drawn from his analysis of our cognition of space.

At this point, we can begin to fully see the structure of Kant’s argument that moves from a consideration of our representation of space to a claim about the ontological status of space.

The Argument for the Exclusive Mind-Dependence of Space

- 1) Our representation of space is an a priori intuition [from the Expositions].
- 2) We cannot have a priori intuitions of anything mind-independent [entailed by the “Conclusions”].
- 3) So, we intuit a mind-dependent space [from 1) and 2)].
- 4) If 1), 2), and 3), then space is not mind-independent.
- 5) So, space is not mind-independent.
- 6) Then, space is exclusively mind-dependent [from 5)].⁹

The first two premises and the intermediate conclusion drawn from these premises are easily found in what Kant explicitly says in the Aesthetic. The remaining steps are implicit in Kant’s movement to claim that space is exclusively mind-dependent. Before considering this argument further, we must say a brief word about the argument’s final conclusion. Kant goes on to characterize the conclusion of this argument as “transcendental idealism.” Though this phrase occurs throughout the *Critique*, in the Aesthetic Kant characterizes the transcendental ideality of space as the claim that space is “nothing as soon as we leave aside the condition of the possibility of all experience, and take it as something that grounds the things in themselves” (A28/B44). It is clear that Kant commits himself to the ontological claim that space and time are structures that we, the cognizing subjects, contribute to our cognition of objects, and space and time are nothing

⁹ Cf. the reconstruction of the same argument in Kieran Setiya, “Kant’s Transcendental Idealism in the ‘Aesthetic,’” *Philosophical and Phenomenological Research* 68, no. 1 (2004): 69-70.

beyond the structures in which cognizing subjects order objects. Kant makes the same point, when he denies that space and time belong to what he calls “things in themselves.”

Discerning what Kant means by “thing in itself” is difficult and recently has been extremely controversial. Traditionally, the interpretations have been divided into two camps: “one-world” and “two-world.”¹⁰ Broadly, one-world interpretations hold that the terms “appearance” and “thing in itself” ultimately refer to the same object. For example, “appearance” might refer to mind-dependent, extrinsic, or observer-dependent properties of an object and “thing in itself” might refer to mind-independent, intrinsic, or observer-independent properties of the same object.¹¹ Still, a more “epistemic” one-world interpretation may hold that these terms do not denote different properties of the object but instead denote the same object under different perspectives. When we use “appearance,” we consider the object under the conditions by which it appears to us, and when we use “thing in itself,” we consider the object independently of these conditions.¹² The other broad interpretive possibility is that “appearance” and “thing in itself” denote completely different kinds of objects. This is the two-world interpretation. From the perspective of transcendental philosophy, appearances are representations that exist in the human mind, and things in themselves are objects that exist outside of the human mind. Appearances may represent things in themselves and things in themselves may cause appearances, but appearances and things in themselves cannot be considered the same thing in any way. This is

¹⁰ They have also been called “two aspect” and “two object” interpretations, respectively.

¹¹ Among others, Rae Langton has argued for the view that “things in themselves” refers to the intrinsic properties of objects in her *Kantian Humility: Our Ignorance of Things in Themselves* (New York: Oxford University Press, 1998). Tobias Rosefeldt has argued that “things in themselves” refers to completely object-dependent properties in his “Subject-Dependence and Trendelenburg's Gap,” 739-48.

¹² Henry Allison, *Kant's Transcendental Idealism* (New Haven: Yale University Press, 1983), 240-1.

how many of Kant's contemporaries, including Pistorius (and later Trendelenburg), interpreted him.¹³

In this dissertation, I do not want to take a stand on this particular interpretive issue, for I do not think resolving the issue is essential to whether the Neglected Alternative succeeds. However, I find it less cumbersome to write as if the two-world interpretation is true, and I will do so in the rest of this work.¹⁴ In addition, I will interpret Kant's use of the term “things in themselves” to mean things that exist absolutely independently of our minds. This, too, is how Kant was read by his contemporaries, and I think it is a plausible interpretation. The upshot is that I will characterize “transcendental idealism,” the main conclusion of Kant's argument in the *Aesthetic*, as the thesis that space and time are structures contributed by our minds, that the objects that appear in space and time are completely mind-dependent, and that space and time are not structures that pertain to objects that exist independently of our minds.¹⁵

Turning our attention directly back to the argument extracted on page 30 above, we are now in a good position to state a general account of the Neglected Alternative objection. The Neglected Alternative is the challenge that one or all of the intermediate steps in this argument

13 For a recent, sustained defense of the two-world interpretation see Nicholas Stang, “The Non-Identity of Appearances and Things in Themselves,” *Nous*, (forthcoming).

14 For example, on the one-world interpretation, it is not clear that one can correctly assert that Kant holds that things in themselves are not in space, because there is a sense in which things in themselves are in space – as appearances. So, when I say that Kant holds that things in themselves are not in space, an adherent of the one-world interpretation should read this to mean something like that Kant holds that objects considered as things in themselves are not in space, or none of the properties denoted by “thing in itself” are the property of existing in space.

15 These claims about mind-dependence and independence should be read as claims made from what we might call the “transcendental standpoint” – the standpoint Kant employs when trying to uncover the processes that produce experience. If, on the other hand, we were to employ the “empirical standpoint,” the everyday perspective within experience, then space should be viewed as mind-independent. Kant usually does not employ the latter perspective, but for one example of it, see A45-6/B62-3.

fail. In other words, we can grant Kant the claim that we have an a priori intuition of space, but it does not follow, and the Expositions do not provide the resources to show, that space is exclusively mind-dependent. To see that this characterization corresponds to the statements of the Neglected Alternative in the literature, consider a few prominent examples:

Kant recognizes only two alternatives, either space as objective is known a posteriori or being an a priori representation it is subjective in origin. There exists a third alternative, namely that although our representation of space is subjective in origin, space itself is an inherent property of things in themselves.¹⁶

Even if we accept the arguments that demonstrate that space and time are subjective conditions, which precede perception and experience in us, there is not a hint of a proof that they could not at the same time be objective forms as well.¹⁷

...[G]ranting that space and time are conditions of sensitivity does not preclude supposing that things in themselves exist in their own space and time, which is not sensed by us.¹⁸

And what is the purpose of all this? As a matter of fact, it is not to demonstrate that my concept of space and time must be the only true one, but only to show that it is a possible concept, that it withstands Mr. K.'s [Kant's] objections, that the phenomena and correct principles that he presents with respect to space and time are just as consistent with the presupposition that these concepts are not just subjective but objective as well, and consequently, that we are simply not forced to assume, with Mr. K., that space and time are only subjective forms of our sensibility and have nothing objective.¹⁹

If Kant is able to defeat the Neglected Alternative, we must be able to show how it is that the above Argument for the Exclusive Mind-Dependence of Space entails its conclusion.

One key factor in determining the success of Kant's argument is his use of the phrase “a

16 Norman Kemp Smith, *A Commentary to Kant's 'Critique of Pure Reason,'* 113.

17 Friedrich Adolf Trendelenburg, *Logische Untersuchungen* (Leipzig: S. Hirzel, 1862), 163.

18 Lorne Falkenstein, “Kant's Argument for the Non-Spatiotemporality of Things in Themselves,” *Kant-Studien* 80, (1989): 268.

19 H.A. Pistorius, “Schultze Review,” 106-7. I follow the translation in Brigitte Sassen, ed., *Kant's Early Critics: The Empiricist Critique of the Theoretical Philosophy* (New York: Cambridge University Press, 2000), 99.

priori intuition.” Despite the centrality of the term, it is insufficiently explicated in the Aesthetic, and the purpose of the next two sections will be to interpret it and other closely related key technical terms that Kant employs in the Aesthetic.

1.2. The Mystery of A Priori Intuition

Recall that at the beginning of the Aesthetic, Kant states that intuitions are representations that relate immediately to their objects and therefore relate to their objects through affection. However, there is an additional aspect of intuition that is not fully discussed in the Aesthetic: the singularity of intuitions. This aspect of intuition comes out later in the *Critique* and in Kant's logic lectures.²⁰ As Kant states in the “Vienna logic” based on his lectures around 1780, intuitions are “only concerned with something individual” (Ak. 24:806). The idea is that intuitions are singular in that they necessarily refer to exactly one object. How the immediacy and singularity of intuition relate is not at all clear, and numerous attempts have been made to try to make sense of the connection between singularity and immediacy in intuitions.²¹ For now, though, we should

20 The singularity of intuition is mentioned along with the immediacy of intuition in Kant's taxonomy of representations (also called “*die Stufenleiter*”) later in the *Critique* (A320/B376-7).

21 To name but three examples, Jakko Hintikka argues that the immediacy of intuitions can be reduced to singularity; Kirk Wilson argues that these qualities are extensionally, though not intensionally, equivalent; and Lorne Falkenstein argues that Kantian intuitions should only fundamentally be considered immediate. See Jakko Hintikka, “On Kant's Notion of Intuition (*Anschauung*),” in *The First Critique: Reflections on Kant's Critique of Pure Reason*, ed. Terence Penelhum and J.J. MacIntosh (Belmont: Wadsworth, 1969), 38-51; Kirk Wilson, “Kant on Intuition,” *The Philosophical Quarterly* 25, (1975): 247-265; and Lorne Falkenstein, *Kant's Intuitionism*, 66.

merely consider both features as clues for understanding the idea of an a priori intuition.

The other feature of a priori intuitions is that they are a priori or “pure.” Kant defines both of these terms in the Introduction of the *Critique*. “A priori” means “independent of experience” (A2/B2) as well as independent of “all impressions of the senses” (B2). Pure representations are a subclass of a priori representations and are ones that do not contain any elements that have been drawn from experience (B3).²² So to briefly summarize, a priori intuitions are said to have the following properties: being singular, being immediate, being received through affection, and being a priori. The problem is that when we put all of these qualities together, it is still unclear how an a priori intuition is supposed to work; specifically the property of being a priori and the property of being received through affection seem completely incompatible. Since an a priori intuition is a priori, it must be independent of experience and sensation, and Kant states that an intuition, an immediate representation, is only possible through the object of intuition affecting us. But it does not seem possible for an object to affect us independently of experience and sensation. For this very reason, Kant himself acknowledges the perplexing nature of a priori intuition in the *Prolegomena*: “It therefore seems impossible *originally* to intuit a priori, since then the intuition would have to occur without an object being present, either previously or now, to which it could refer, and so it could not be an intuition” (Ak. 4:282). Going a step further, one of Kant's early critics, J.G.E. Maass, held that the properties that Kant ascribes to intuition entail the impossibility of a priori intuition, and so the Aesthetic fails entirely.²³

The mystery of how we can thus have a priori intuitions leads to the mystery of how it is that a priori intuitions are intuitions of a particular object at all, which is a crucial issue in the

²² For brevity's sake, I just use “a priori intuition” rather than “pure, a priori intuition” in the rest of the dissertation.

²³ “Über die transscendentale Aesthetik,” 134-5.

context of the Neglected Alternative. Thus, our immediate task is to find an acceptable interpretation of a priori intuition and to make sure that our interpretation provides an account of how a priori intuitions relate to an object. Note that in this context I use “object” in the broadest sense possible; I am not prejudging the kind of thing the a priori intuition of space could relate to. The question is how a priori intuition is an intuition of anything at all, whether or not this thing is an independent structure, a set of relations, something that is in turn an aspect of something else, or any other possibility. In the remainder of this section, I will briefly consider two possible ways of understanding Kantian a priori intuition, but I will also contend that they are not adequate, and I will present my preferred interpretation in the next section. For our purposes, the essential question is how the a priori intuition of space comes to be an intuition of this particular structure, space, and I will often focus on this case in the following discussion.

One might first argue that in understanding Kantian a priori intuition, we (or Kant) should simply give up the claim that a priori intuitions refer to some other object at all. Support for this strategy comes from the fact that Kant sometimes seems to do this in later works like the *Metaphysik L₂*, when he says that space and time are intuitions that “concern no object” (Ak. 28:567) and in the *Opus Postumum* when he says, “Space and time are intuitions without an object; thus, they are merely subjective forms of the juxtaposition of the manifold into the infinity of an absolute whole (which is not part of a still greater whole)” (Ak. 22:74; my translation). Accordingly, we would answer the question of how a priori intuition can relate to objects via affection, by denying the presupposition of the question – that a priori intuitions relate to an object at all.

A natural way of developing this line of thought is to hold that by the end of the

Expositions, Kant has shown that we should 1) identify space and time with our a priori intuitions of them and 2) hold that they are identical to the forms of empirical intuitions. For example, Falkenstein elaborates a view like this, when he says that “space and time are never *intuited* as pure, empty forms existing apart from matter. But this does not preclude him from referring to them as 'pure intuitions,' provided that he means thereby only to refer to them as the pure or formal aspect of the originally given *sensory* manifold...”²⁴ On such a view, it would be appropriate to call space and time, the formal aspects of empirical intuitions, “a priori,” because they are constant forms across all (outer) intuitions, and this fact allows us to anticipate space and time independently of any particular experience. This more empiricistic view of a priori intuition accords nicely with Kant's denial of innate representations and his famous claim at the beginning of the Introduction to the B edition of the *Critique* that “all our cognition begins with experience” (B1).

As stated above, this interpretation denies Kant's claim that our a priori intuition relates to a distinct object. Instead, our a priori intuition of (e.g.) space is simply *identical* to space. This strategy is fairly revisionistic in that it stretches the sense in which an a priori intuition is an intuition. In virtue of just being an aspect of empirical intuition it does not immediately relate to a single object, as Kant describes intuitions; instead the entire intuition, of which the a priori intuition is a part, is what immediately relates to an object. If this were Kant's view of the nature of a priori intuition, it would be unclear why he used the term in the first place and instead did not always refer to them with the terms “aspect of intuition” or “form of intuition.” Further, though Kant is painfully obscure on the matter, denying that a priori intuitions themselves relate to an object does not cohere well with the relevant texts. Consider Kant's main conclusion at

²⁴ *Kant's Intuitionism*, 90.

A26/B42 discussed above. He says that “Space represents no property at all of any things in themselves nor any relation of them to each other...For neither absolute nor relative determinations *can be intuited prior to the existence of the things to which they pertain, thus be intuited a priori*” (my emphasis). This is an essential move in Kant's argument, and his objection to space representing things in themselves would not make any sense if a priori intuitions were not a kind of representation that related to an object.

Finally, even if one is not moved by my complaints in the previous paragraph, my further complaint is that the proposed view is incomplete as it is stated, and when we fill in the details of the view, I contend that the textual evidence supports a different characterization of that aspect of our cognition that is a priori intuition. Kant needs some account of why it is that we can know with certainty that all empirical intuitions *must* have these particular forms. Kant's answer is that the constitution of the human subject's receptive faculty (sensibility) necessitates that our intuitions have the particular forms they do. I will soon argue that the textual evidence supports the view that a priori intuitions are not the forms of empirical intuitions but are instead the elements of the receptive faculty that necessitate the fact that empirical intuition are ordered in space and time. My interpretation has the further advantage of preserving a central feature of a priori intuition, at least for Kant in the 1780s, namely, that our a priori intuitions are intuitions that relate to a distinct object.

Before considering the view I endorse, however, there is another interpretive possibility for understanding a priori intuitions. We might hold that a priori intuitions function just like empirical intuitions, in that they come into existence through affection and relate to an object through the object affecting the mind. It is just that in the case of a priori intuition the object is

the mind itself, or some aspect of the mind.²⁵ In other words, an a priori intuition can be described in general terms as the mind affecting itself. Though it may *prima facie* sound like a strange view, there are a few passages added to the Aesthetic in the B edition, where Kant strongly suggests the view.

Now that which, as representation, can precede any act of thinking something is intuition, and, if it contains nothing but relations, it is the form of intuition, which, since it does not represent anything except insofar as something is posited [*gesetzt*] in the mind, can be nothing other than the way in which the mind is affected by its own activity, through itself, i.e., it is an inner sense as far as regards its form (B67-8).

If I say: in space and time intuition represents both outer objects as well as the self-intuition of the mind as each affects our senses, i.e., as it appears, that is not to say that these objects would be a mere illusion (B69).²⁶

The view of a priori intuition suggested in these passages is especially peculiar, because sensibility, the faculty whose defining characteristic is receptivity, is characterized as actively affecting itself.²⁷ Thus, in the case of space, it is not clear how the “spatial-aspect” of the mind comes to affect the mind and create an intuition of space. If a priori intuition truly functioned just like empirical intuition, this would mean that space exists in the mind as a complete structure, and we acquire an intuition of space when space affects us (in some way prior to experience). However, the view that space exists in the mind as a complete, and therefore infinite, structure is not especially plausible.²⁸

25 Cf. Willaschek, “Eine 'lückenlose' Interpretation,” 554n.

26 Cf. A23/B37, where Kant describes inner sense as self-intuition and Kant's May 12th, 1789 letter to Reinhold (Ak. 11:38).

27 The other alternative is that the understanding or imagination affects the sensibility to create space, but this would seem to completely destroy the central claim of the Aesthetic: that the a priori intuitions of space and time originate entirely in sensibility.

28 The implausibility of this view has not stopped some commentators from ascribing the view to Kant. See especially Christopher Garnett, *The Kantian Philosophy of Space* (New York: Columbia University Press, 1939), 164-76 for a defense of ascribing the view to Kant.

1.3. What A Priori Intuition Is

Fortunately, I think there is sufficient textual evidence to show that each a priori intuition really does refer to an object, but it does not relate to its object through affection, at least not exactly like an empirical intuition does. Instead, the relationship of dependency is reversed: in empirical intuitions the affecting object provides a ground for the intuition of the object. In an a priori intuition the intuition provides a ground for the object that is intuited; specifically the a priori intuition makes possible a form that structures objects of intuition. I will argue for this interpretation in three stages. First, I will motivate and explain the exact commitments of the interpretation, second I will consider specific textual support for the interpretation, and finally I will consider possible objections to the interpretation.

The best general motivation for this interpretation comes from Kant's attempts to grapple with the question of how representations and objects relate. This question is famously addressed in two places: a 1772 letter to Markus Herz and an introductory passage to the Transcendental Deduction. We will have to consider both passages, so we will begin with the earlier one. In the letter, Kant reflects on his plans to build on the work in his *Inaugural Dissertation* to create a new system of theoretical philosophy. He realizes that the “key to the whole secret of metaphysics” can be found through consideration of the question “What is the ground of the relation of that in us which we call 'representation' to the object?” (Ak. 10:130). Kant considers

two clear examples of this relationship. The first involves the representations of our sensibility:

If a representation comprises only the manner in which the subject is affected by the object, then it is easy to see how it is in conformity with this object, namely, as an effect accords with its cause, and it is easy to see how this modification of our mind can represent something, that is, have an object. Thus the passive or sensuous representations have an understandable relationship to objects, and the principles that are derived from the nature of our soul have an understandable validity for all things insofar as those things are supposed to be objects of the senses (Ak. 10:130).

The “passive” representations we receive through sensibility relate to their objects through affection; a particular sensible representation is a representation of an object x , if and only if x affected our sensibility and caused us to have this particular sensible representation. This connection is unsurprising in light of Kant's discussion of sensible intuition at the beginning of the *Aesthetic*.²⁹ Kant then presents another, more active, way in which representations and objects can relate.

Similarly, if that in us which we call “representation” were active with regard to the object, that is, if the object itself were created by the representation (as when divine cognitions are conceived as the archetypes of things), the conformity of these representations to their objects could also be understood (Ak 10:130).

This possibility is that representations *create* the objects to which they refer. As Kant goes on to explain, this possibility is really only available to the divine being.³⁰ Thus, neither of the two possibilities he has considered can explain how intellectual representations in humans relate to their objects. Kant's task, then, is to uncover a new mechanism by which the representations of

²⁹ See p. 24f above.

³⁰ Interestingly, Kant makes a parenthetical note that in the case of “moral ends,” our representations do cause their objects to exist. Cf. Kant's claim in the *Critique of Practical Reason* that all a priori moral concepts “themselves produce the reality of that to which they refer (the intention of the will) – an achievement which is in no way the business of theoretical concepts” (Ak. 5:66).

our understanding relate to an object.

The primary result of this search is the account of the categories and their transcendental deduction in the *Critique of Pure Reason*. Thus, Kant revisits the general question of how representations and their objects relate in an introductory section of the Transcendental Deduction, and he provides a much more nuanced answer. His starting point is the claim that there are two ways representations and objects can relate.

There are only two possible cases in which synthetic representation and its objects can come together, necessarily relate to each other, and, as it were, meet each other: Either if the object alone makes the representation possible, or if the representation alone makes the object possible (A92/B124-5).

Notice that the key terminology in the above passage is absent in the earlier letter to Herz; the key term is the phrase “makes possible.” Either the object makes its representation possible or the representation makes its object possible. About the first option, the object making the representation possible, Kant says that the “relation is only empirical, and the representation is never possible a priori. And this is the case with appearance in respect of that in it which belongs to sensation” (A92/B125). For our purposes, it is crucial to note that this eliminates the possibility that our a priori intuition of space is made possible by some other object, since Kant states that an object making a representation possible is necessarily an empirical act. Thus, we should expect that Kant holds that the a priori intuition of space makes its object possible.

Kant goes on to immediately clarify that a representation making its object possible is *not* the same thing as the representation creating its object, described in the letter to Herz. Instead, Kant somewhat cryptically says that “the representation is still determinant of the object a priori if it is possible through it alone to cognize something as an object” (A92/B125). However, he

helpfully clarifies this point by employing his earlier results in the Aesthetic concerning the representations of sensibility. He explains that “It is clear from what has been said above, however, that the first condition, namely that under which alone objects can be intuited, in fact does *lie in the mind a priori as the ground of the form of objects*. All appearances therefore necessarily agree with this formal condition of sensibility, because only through it can they appear, i.e. be empirically intuited and given” (A93/B125, my emphasis). This passage, I claim, provides an essential clue for figuring out how the a priori intuition of space relates to its object; especially important is Kant's claim that the ground of the form of objects lies in the mind a priori. Though it is not explicitly stated in this particular passage, I go a step further and will claim that this a priori ground is an a priori intuition and that a priori intuition is a partial condition for the existence of appearances.

But we must refine this picture a bit more, as Kant's view of spatial cognition in the Aesthetic is complex, and we can be more specific about the way in which the a priori intuition of space makes appearances possible. I contend that the a priori intuition of space makes possible the formal aspect of our outer empirical intuitions of appearances, or what Kant sometimes call “the form of outer intuition.” It is important to note an ambiguity, however, in Kant's use of the term “form of intuition,” and Henry Allison nicely distinguishes between Kant's two uses. A form of intuition “can be taken to mean either the form or manner (*Art*) or *intuiting*, which can be characterized as an innate capacity or disposition to intuit things in a certain way, such as spatially and temporally, or the form, the essential structure, of that which is *intuited*.”³¹ On the first use, “form of intuition” denotes a capacity or disposition, and I contend that on this use it is

³¹ *Kant's Transcendental Idealism*, 97/115 in the first/second editions respectively. Cf. Patricia Kitcher, *Kant's Transcendental Psychology*, 36.

synonymous with “a priori intuition.” The second use identifies the object grounded by our a priori intuition: the formal structure that is actually found in our intuitions of objects. Kant specifically discusses this latter aspect of intuition in the introductory paragraphs of the *Aesthetic*. Here, he says that if we have a representation of a body and abstract away the contributions by both the understanding and sensation, “something from this empirical intuition is still left, namely extension and form” (A21/B35). Later in a footnote to the first Antinomy, Kant gives a remarkably unambiguous presentation of the hylomorphic nature of intuitions: “Thus, empirical intuition is not put together out of appearances and space...The one is not to the other a correlate of synthesis, but rather it is only bound up with it in one and the same empirical intuition, as matter and its form” (A429n/B457n).

An additional aspect of this account is that Kant holds that *space* is what is made possible by the a priori intuition of space. However, this leads to a slight ambiguity in what space is, since our a priori intuition of space makes possible the formal structure of the empirical intuition of an appearance, and *therefore* makes the appearance possible. In other words, the a priori intuition of space provides a partial ground for the existence of appearances by completely grounding the form of appearances (the other ground of appearance is sensation). Thus, depending on our focus, space is either the form of appearance or the appearances themselves. This ambiguity nicely reflects an ambiguity in how we think of space in more “everyday” contexts. Space can be viewed as simply the *structure* in which we experience objects outside of us, but we also sometimes consider space as a populated structure that includes both the objects and the structure. With this ambiguity in mind, I will usually consider space to just be the structure itself that is made possible by the a priori intuition of space, i.e. the actual form of our empirical

intuitions of appearances, not the entire intuition that additionally contains a matter.

Finally, before considering specific textual support for my interpretation, we need to clarify the extent to which my interpretation of a priori intuition preserves the various qualities that Kant ascribes to the term. Recall that these qualities are being a priori, singular, immediate, and having reference to an objection through affection. My interpretation preserves the a priori status of a priori intuitions, by holding that a priori intuitions not only exist prior to and independently of experience but provide a contribution that is distinct from what we receive through sensation (the matter of intuition) and is in no way derived from what we receive through sensation. With regard to singularity, a priori intuitions make possible a specific structure: the a priori intuition of space makes space possible, and the a priori intuition of time makes time possible. A priori intuitions are immediate representations in that there is no intermediate process involved in the relation between the a priori intuition and the structure that it makes possible. The final quality, relating to an objection through affection, seems the most problematic. As I will demonstrate shortly, affection does have a role to play in a priori intuitions, but we must deny that a priori intuitions are intuitions of an object that affects the subject; this quality is one that is only had by empirical intuitions, and as discussed above, Kant clearly denies that the existence of a priori representations can be made possible by other objects (A92/B125). Still, a priori intuitions do require sensation, or the subject being affected by an object, in order to successfully refer to the structures they make possible. Since the (e.g.) a priori intuition of space specifically makes possible a particular form that exists as an aspect of empirical intuitions, the a priori intuition of space does not actually refer to a structure (space) until our sensibility is affected by an object and we receive an intuition that has both a matter

(provided by the object) and a form (provided by the subject and made possible by the a priori intuition). In other words, we do not have an a priori intuition that successfully refers to a structure, until we encounter an object and thus receive an empirical intuition. This perfectly accords with Kant's assertion at B1 that all cognition begins with experience.³²

The passages where Kant focuses on explaining how a priori intuition is possible support the view that a priori intuitions provide the ground for the form of our actual, empirical intuitions. First, though, it is helpful to consider a passage later in the *Critique* where Kant explicitly lays out the connection between a priori and empirical intuition: “even if a pure intuition is possible a priori prior to the object, then even this can acquire its object, thus its objective validity, only through empirical intuition, of which it is the mere form” (A239/B298).³³ Kant states directly that a priori intuition acquires its object through empirical intuition; my further claim is that this object of a priori intuition *is* the form of empirical intuitions. To defend this, we need to return to the Aesthetic and consider Kant's second statement in the Conclusions. Here, Kant fills in the details of the subjectivity of space.

Now since the receptivity of the subject to be affected by objects necessarily precedes all intuitions of these objects, it can be understood how the form of all appearances can be given in the mind prior to all actual perceptions, thus a priori, and how as a pure intuition, in which all objects must be determined, it can contain [*enthalten*] principles of their relations prior to all experience (A26/B42; cf. B41 and A267/B323).

32 Thus, there is an *indirect* way that our a priori intuitions refer to the objects that affect our sensibility: the a priori intuition partially grounds empirical intuition and the empirical intuition is an intuition of an object that affects our sensibility.

33 Cf. Kant's claim that he has provided a transcendental deduction of the concepts of space and time and has thereby demonstrated that they have objective validity (A87/B119-120). For discussion of this point, see Melissa Merritt, “Kant on the Transcendental Deduction of Space and Time,” *Kantian Review* 14-2, (2010): 1-37.

Pure, a priori intuition is said to “contain principles” that pertain to the relations of objects.³⁴ A priori intuition, thus, anticipates the structure of the objects we experience. With this point in mind, we must now return to the passage in the *Prolegomena*, where Kant explicitly tries to answer the question of how a priori intuition is possible.

There is therefore only one way possible for my intuition to precede the actuality of the object and occur as an a priori cognition, namely if it contains [*enthält*] nothing else except the form of sensibility, which in me as subject precedes all actual impressions through which I am affected by objects. For I know a priori that the objects of the senses can be intuited only in accordance with this form of sensibility (Ak. 4:282).

Here, Kant describes the content of a priori intuition as being a “form of sensibility,” and the formal structure of objects intuited must accord with this form of sensibility. Thus, the a priori intuition dictates that formal structure of our intuitions.

Finally, we can build on Kant's claim in the Transcendental Deduction, discussed above, where he states that the ground of sensible intuition lies in the mind a priori. In the B version of the Transcendental Exposition, Kant most directly states that an a priori intuition of space is what lies in the mind a priori. There he deduces that there must be an intuition that exists in the mind prior to experience that determines the geometrical properties of objects. This a priori intuition must have “its seat merely in the subject, as its formal constitution for being affected by objects and thereby acquiring immediate representation, i.e., intuition, of them, thus only as the form of outer sense in general” (B41). Thus, a priori intuition exists in the subject prior to experience and it necessitates the formal structure of intuition by making possible a particular form of intuition that exists in empirical intuition.³⁵

³⁴ For characterization of space as being fundamentally a principle, see also A22/B36 and A619/B647.

³⁵ Three commentators who present similar interpretations as the one I am developing here are

The exact mechanism by which a priori intuitions provide this ground is not developed by Kant in any detail; it is explicated in terms of the catch-all phrase “makes possible.”³⁶ Still, a priori intuitions appear to provide something like rules or principles for how the intuitions that we receive are structured. This interpretation seems to create a tension, however, with Kant's clear distinction between sensibility and understanding, for he maintains that the understanding in particular is the faculty of rules (A126-7). But whereas the understanding's categories are the rules for synthesis, I hold that the sensibility contains in itself something like rules for the ordering in which we receive objects, and Kant refers to these rules primarily with the term “a priori intuition.” In support of this interpretation, Kant lists pure intuition as what “grounds the totality of perception *a priori*” alongside synthesis and apperception as grounds of association and empirical consciousness, respectively (A115-16). Thus, both pure intuition and the functions of the understanding are characterized together as “grounds.” Further, Kant holds that a priori

Heidegger, James Messina, and Marcus Willaschek. Heidegger seems to emphasize the fact that the a priori intuition of space makes possible space, the form of empirical intuition (though I do not accept Heidegger's further claims about the primacy of the imagination). See *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana University Press, 1997), 31-33. James Messina also endorses the view that space is a structure (or in his terminology, “subjective framework”) made possible by the a priori intuition of space. See his “Kant's Hidden Ontology of Space,” (PhD diss., University of California, San Diego), 74-7. Finally, despite some disagreements about Kant's terminology, Marcus Willaschek endorses a view of a priori intuition very much like the one I have advocated for here. He gives the following account: “In the case of 'pure' aspects of empirical intuition it would also follow from an externalist conception of intuition that the a priori form of intuition, as a structural characteristic of sensibility is the *cause* not only of the ordering of the content of sensation but also the fact that this content is *intuited as ordered*” (“Eine 'lückenlose' Interpretation,” 553). If we replace “a priori form of intuition” with “a priori intuition,” then I am in agreement with the interpretation in the quotation.

36 It may be fruitful to compare Kant's notion of a priori intuition with his characterization of “intellectual intuition,” especially in the *Critique of Judgment* §77. There Kant describes intellectual intuition as presenting a *totum* (Ak. 5:407) and then, in connection, discusses the unified nature of space (Ak. 5:409). For discussion of §77 in the context of Kant's view of space, see Colin McLear, “Two Kinds of Unity in the *Critique of Pure Reason*,” *Journal of the History of Philosophy* (forthcoming).

intuitions and pure concepts (the categories) “can hardly be distinguished”(A4/B8).³⁷ Still, this is not to say that a priori intuitions and the categories are exactly analogous. The important difference is that a priori intuitions refer to their objects directly and each a priori intuition must refer to a particular mind-dependent structure, whereas the categories, though they make experience possible, refer to their objects indirectly and can potentially apply to an indefinite number of objects both mind-dependent and mind-independent.³⁸

However, it is important to note that I do not interpret Kant to hold the view that the space that orders our intuitions is the product of an intellectual synthesis or a synthesis (a putting together) *of any sort*. In clarifying this point, it is helpful to employ a distinction from Lorne Falkenstein's commentary on the Aesthetic. One kind of interpretation of Kant's view on the origin of intuition is called the “Heap Thesis.” The Heap Thesis holds the following:

[S]ense dumps its deliverances on us all in a heap – a heap in which there is no such thing as succession in time or adjacency in space – and this heap of items is then subjected to a sorting and arranging process of the mind, guided by certain forms or 'inborn laws' that first produce an ordered 'manifold of appearance'.³⁹

Falkenstein contrasts this with his own interpretation of Kantian intuition on which “Kant takes *an ordered manifold* of parts or 'matters' to be the representation immediately given in sense intuition.”⁴⁰ My own interpretation agrees with Falkenstein on this point; an empirical intuition is

37 The same idea is also expressed in the *Prolegomena*: “During an investigation of the pure elements of human cognition (containing nothing empirical), I was first of all able after long reflection to distinguish and separate with reliability the pure elementary concepts of sensibility (space and time) from those of the understanding” (Ak. 4:323).

38 Eric Watkins convincingly argues that nowhere in the *Critique* does Kant demonstrate that the categories (or at least unschematized categories) could not apply to mind-independent objects. See his “Kant's Transcendental Idealism and the Categories,” *History of Philosophy Quarterly* 19, no. 2 (2002): 191-215.

39 *Kant's Intuitionism*, 78-9.

40 *Ibid*, 81.

not constructed by the mind out of a given matter and given form but is immediately given as a representation with matter and form together. The a priori intuition of space is the ground that necessitates that the form of empirical intuitions is space. In other words, the a priori intuitions are features of the subject's constitution responsible for the forms of intuition, and in particular, they are responsible for the fact that our empirical intuitions are received in these forms of intuition; there is no further act of putting together the matter and form of intuition, for they are received together. Thus, empirical intuitions are received as a whole with both a matter and a form, but the ground of the form is the a priori intuition in the subject and the ground of the matter is the object that affects the mind.⁴¹

For the rest of this section I will consider potential problems for my interpretation of a priori intuition. One question is how we can make sense of those passages from the B edition of the *Aesthetic* quoted above on page 39, where Kant seems to describe a priori intuition as coming about through self-affection. An hypothesis I find appealing is that these passages are a holdover from a view of spatial cognition that Kant endorses in the *Inaugural Dissertation*. The view in this earlier work is that our representations of space and time are acquired from the action of the mind. There, Kant explicitly rejects the existence of innate concepts and says the following about our concepts of space and time.

But each of the concepts has, without any doubt, been acquired, not, indeed by abstraction from the sensing of objects (for sensation gives the matter and not the form of

41 I thus wholeheartedly agree when Falkenstein writes “impression of the sense organs and certain characteristic features of the subject's 'constitution'” are “the joint causes of a single, complex intuition, a representation containing both sensory matter and spatiotemporal form in an immediately given spatiotemporal sensory manifold, but with it understood that the subject's constitution is the ground determining the spatiotemporal form of the manifold whereas impression of the sense organs is the cause only of its matter” (*Kant's Intuitionism*, 87).

human cognition), but from the very action of the mind, which coordinates what is sensed by it, doing so in accordance with permanent laws. Each of these concepts is like an immutable image, and, thus, each is to be cognized intuitively... Nor is there anything innate here except the law of the mind, according to which it joins together in a fixed manner the sense impressions made by the presence of an object (Ak. 2:406).

Here the picture is that our representation of space is a representation of the laws of the mind for coordinating what the sensibility receives. In other words, space represents a class of actions performed by the mind on what our senses receive. The passage does not explicitly talk about the mind affecting itself, but it is similar to the passages from B67-9 above, in that it views the intuition of space as an intuition of a part of the mind (the laws for coordinating outer objects). The view expressed in this passage from the *Inaugural Dissertation* is importantly different from the view of the *Critique*; in the *Critique*, Kant no longer holds that sensibility actively sorts sense impressions (viz. “The Heap Thesis”) but instead holds that the laws of sensibility provide a ground for how sense impressions are received.⁴² Though there is good evidence that Kant changes some features of his view of space between the *Inaugural Dissertation* and *Critique*, it would not be surprising if he sometimes reverted to the older view. This is all the more likely in this case, since the talk of a priori intuition as arising through self-affection only occurs in this one section.

But this passage from the *Inaugural Dissertation* leads to a thornier issue: Kant's attitude towards innate representations. It would seem that my claim that a priori intuitions are found in the subject's constitution commits Kant to innate representations. Even though this issue is not a central focus of the first *Critique*, Kant is quick to deny innate representations, when the topic arises. Most famously, in his reply to Eberhard, Kant clarifies his position concerning the origin

⁴² For the argument that Kant changes his outlook on this point, see Falkenstein, *Kant's Intuitionism*, p. 47-52 and 91, as well as Kemp Smith, *Commentary*, 89-90.

of our representations.

The *Critique* admits absolutely no implanted or innate representations. One and all, whether they belong to intuition or to concepts of the understanding, it considers them as acquired. But there is also an original acquisition (as the teachers of natural right call it), and thus of that which previously did not yet exist at all, and so did not belong to anything prior to this act. According to the *Critique*, these are, in the first place, the form of things in space and time, second the synthetic unity of the manifold in concepts; for neither of these does our cognitive faculty get from objects as given therein in-themselves, rather it brings them about, a priori, out of itself. There must indeed be a ground for it in the subject, however, which makes it possible that these representations can arise in this and no other manner, and be related to objects which are not yet given, and this ground at least is innate (Ak. 8:221).

One important feature of this passage is that Kant explicitly acknowledges that there is an innate ground in the subject that makes our a priori representations possible. My interpretation identifies the a priori intuition of space with a particular innate ground in the subject. Since intuitions are a kind of representation, I am committed to saying that there are innate representations; this is a bullet I am willing to bite, though I do not think it is a serious cost. Kant is most concerned with denying that we have innate representations in the sense of complete representations or concepts that we then employ and apply to objects. A ground in the subject for the ordering of the objects we receive is not such an innate representation.⁴³ Note that in the above quotation, Kant specifically holds that “the form of things in space and time” is not innate but is produced by an “original acquisition.” My interpretation accommodates this point. The actual forms of appearances in empirical intuitions, space and time, do not innately exist in the

⁴³ See John Callahan's characterization of nativism: “Kant does not identify nativism as a thesis imputing dispositions of thought that essentially determine the possibility of cognition, but rather as the thesis that there are metaphysical concepts which are *non-acquired* and possessed by virtue of lying fully formed in the mind.” (“Kant on Nativism, Scepticism and Necessity,” *Kantian Review* 18, (2013): 12). Cf. Falkenstein, *Kant's Intuitionism*, 11.

mind, but only come to exist when we are affected by objects.⁴⁴ The ground of space and time, the a priori intuitions of these, is what exists in the mind innately.

Another large issue arises when we observe that Kant sometimes writes as though an a priori intuition is a kind of activity in which we can engage in order to attain mathematical knowledge. This does not cohere with the account I have provided, according to which a priori intuitions function merely like principles that ground the form of our intuitions. A paradigmatic example of this problematic language is found in the Aesthetic, when Kant discusses the synthetic a priori nature of geometry. There, Kant makes the surprising claim that “you must therefore give your object a priori in intuition, and ground your synthetic proposition on this. If there did not lie in you a faculty for intuiting a priori...then how could you say that what necessarily lies in your subjective conditions for constructing a triangle must also necessarily pertain to the triangle in itself?” (A48/B65-6). However, despite this sort of language, I do not think it is difficult to make sense of the role of a priori intuition in mathematical cognition on my interpretation. Consider, first, the ellipsed portion of the above passage. Here is the passage in full:

If there did not lie in you a faculty for intuiting a priori; if this subjective condition regarding form were not at the same time the universal a priori condition under which alone the object of this (outer) intuition is itself possible; if the object (the triangle) were something in itself without relation to your subject: then how could you say that what necessarily lies in your subjective conditions for constructing a triangle must also necessarily pertain to the triangle in itself?

Kant seems to gloss this faculty for intuiting a priori as a condition for intuiting objects, which agrees with my central claim that a priori intuition exists in the subject as a ground of the form of

⁴⁴ Cf. Beatrice Longuenesse, *Kant and the Capacity to Judge*, trans. Charles Wolfe (Princeton: Princeton University Press, 1998), 252.

empirical intuitions. The a priori and necessary truths of geometry are demonstrated through the construction of geometrical objects in accordance solely with the principles that constitute the a priori intuition of space. It is not the case that geometrical objects are born *ex nihilo* from a mystical faculty of a priori intuition. This is made clear in Kant's discussion of philosophical and mathematical method towards the end of the *Critique*. There, Kant says that the relevant mathematical objects can be constructed "either through mere imagination, in pure intuition, or on paper, in empirical intuition, but in both cases completely a priori, without having had to borrow the pattern for it from any experience" (A713-4/B741-2). The first case is the one most important for us; Kant describes construction in pure intuition as occurring through imagination.⁴⁵ Thus, an additional active faculty is involved in constructions employing pure intuition; a priori intuitions alone cannot produce mathematical objects *ex nihilo*. But, in addition, constructions outside of the mind (e.g. on paper) can do the same work as long as the demonstration does not borrow anything from experience.⁴⁶

Finally, I can think of one more worry about my interpretation that can be dealt with briefly. One might still worry that my interpretation identifies the wrong aspect of Kant's view of spatial cognition as actually being space. I have argued that the a priori intuition of space is the ground of space and makes space possible, but Kant often seems to *identify* space with an a priori intuition.⁴⁷ A plausible explanation for why Kant is tempted to equate space with the a priori intuition of space is because of the fact that space is dependent on the a priori intuition of it.

45 Kant reiterates this point in his review of the geometer Kästner. There, he describe construction as a rule-governed activity of the imagination (Ak. 20:411) and again explicitly connects a priori intuition and imagination (Ak. 20:414).

46 Cf. Lisa Shabel's account of Kant's view of geometric cognition in her "Kant's 'Argument from Geometry,'" *Journal of the History of Philosophy* 42, no. 2 (2004): especially p. 208-14.

47 See, for example, A27/B43 and A42/B60-1 and the discussion on p. 36f above.

Thus, the ultimate source of space is the a priori intuition of space, which would give rise to the temptation to equate space and the a priori intuition of space, in an investigation into the ultimate nature of what space is.⁴⁸

So far, I have given a general account of what an a priori intuition is and what the object is that an a priori intuition refers to. We can now return to the Aesthetic and take a closer look at how it is that Kant tries to establish that we have an a priori intuition of space and what properties Kant claims are had by space and our intuition of it.

1.4. The Aesthetic Reconsidered and the Properties of Space

Turning our attention back to the beginning of the Aesthetic, consider how Kant characterizes the methodology of the Aesthetic:

In the Transcendental Aesthetic we will therefore first isolate sensibility by separating off everything that the understanding thinks through its concepts, so that nothing but empirical intuition remains. Second, we will then detach from the latter everything that belongs to sensation, so that nothing remains except pure intuition and the mere form of appearances, which is the only thing that sensibility can make available a priori. In this investigation it will be found that there are two pure forms of sensible intuition as principles of a priori cognition, namely space and time, with the assessment of which we will now be concerned (A22/B36).

Based on this passage, we would expect the following Expositions to involve a consideration of a mental representation and then a process of mentally abstracting away or “separating off”

⁴⁸ On this point, I am indebted to James Messina, “Kant's Hidden Ontology of Space,” 76.

various elements of the representation until we are left with only form; then we will see that space and time are the formal elements of the representation with which we started.

However, literally understood, this methodology is completely at odds with the epistemic claims made later in the *Critique*, and Kant does not even follow this proposed method in the Expositions.⁴⁹ The methodology is at odds with the rest of the *Critique*, because it proposes that we can mentally deconstruct a sensible representation in order to gain knowledge about the a priori features of our intuitions. But the Transcendental Analytic clearly entails that this process cannot give us knowledge or anything of cognitive significance. This is because both intuitions and concepts must be synthesized together in order for us to have cognition. Unfortunately, this point is made only after the Aesthetic ends, and Kant famously declares that “thoughts without content are empty, intuitions without concepts are blind” (A51/B75). This idea leads to the problem that the Transcendental Deduction tries to solve: we can only have knowledge, if we can correctly apply concepts (and the categories in particular) to our intuitions, and so we must explain how the correct application of concepts is both possible and necessary. Kant's fear of unsynthesized intuitions is especially strong in the A Deduction, when he worries about the possibility of a “swarm of appearances” filling “up our soul without experience ever being able to arise from it” and concludes that “intuition without thought...would therefore be as good as nothing, for us” (A111).

Since the Aesthetic is supposed to form the foundation of Kant's Critical system, it would be disastrous, if it were fundamentally incompatible with the rest of the *Critique*. Fortunately, I think the way that Kant actually argues in the Expositions is compatible with the epistemic

49 Cf. Falkenstein, *Kant's Intuitionism*, 54-8 and Henny Blomme, “Können wir den ursprünglichen Raum erkennen,” in *Das Leben der Vernunft. Festschrift für Bernd Dörflinger zum 60. Geburtstag*, ed. Hünting, Olk, and Klingner (Berlin: De Gruyter, 2013), 30-9.

strictures of the Analytic. Before looking at the Aesthetic directly, however, we need to recognize one important claim in the Analytic that bears directly on the nature of space. In the B Deduction, Kant discusses the essential role that our understanding plays in the cognition of space. Consider, first, this footnote:

Space, represented as object (as is really required in geometry), contains more than the mere form of intuition, namely the comprehension of the manifold given in accordance with the form of sensibility in an intuitive representation, so that the form of intuition merely gives the manifold, but the formal intuition gives unity of the representation. In the Aesthetic I ascribed this unity merely to sensibility, only in order to note that it precedes all concepts, though to be sure it presupposes a synthesis, which does not belong to the senses but through which all concepts of space and time first become possible (B160n).

This passage is famously obscure, but one point that is clear is that in order to view space as an object, which is necessary in the science of geometry, we need more than the sensibility alone; the understanding must synthesize the contributions of a priori intuition. As it turns out, Kant has already expanded on this line of thought earlier in the Deduction.

Thus, the mere form of outer sensible intuition, space, is not yet cognition at all; it only gives the manifold of intuition a priori for a possible cognition. But in order to cognize something in space, e.g., a line, I must draw it, and thus synthetically bring about a determinate combination of the given manifold, so that the unity of this action is at the same time the unity of consciousness (in the concept of a line), and thereby is an object (a determinate space) first cognized (B137-8).

Though the issue of synthesis is not at all explicit in the Aesthetic, Kant does explicitly connect synthesis to the concerns of the Aesthetic in a 1790 letter to Kiesewetter. Tying together many of the issues at stake in this chapter and dissertation, Kant critiques Kiesewetter's own attempt to show that space is ideal:

Your proof of the ideality of space as the form of outer sense is entirely correct; only the beginning is questionable. You distinguish between the representation of space (one ought rather to say the consciousness of space) and space itself. But that would bestow objective reality on space, a view that generates consequences wholly at odds with the Critique's line of argument. The consciousness of space, however, is actually a consciousness of the synthesis by means of which we construct it, or, if you like, whereby we construct or draw the concept of something that has been synthesized in conformity with this form of outer sense (Ak. 11:405a).⁵⁰

Kant clarifies that what Kiesewetter is calling the “representation of space” is more accurately called “consciousness of space.” Consciousness of space involves a synthesis by the understanding, specifically an awareness of a synthesis. Conveniently, this letter also supports my contention that our a priori intuition of space functions like a rule or principle, as Kant states that the synthesis involved in our representation of space must *conform* to our form of outer sense. This form of outer sense can quite plausibly be understood as our a priori intuition of space.

Thus, at this point, we are forced to reconsider the main argumentative strategy of the Aesthetic. Since Kant is committed to the view that the understanding is involved in any cognition of space, then the Aesthetic cannot just be a consideration of our faculty of sensibility in absolute isolation. Here is my suggestion, then, for viewing the methodology of the Aesthetic: in the Aesthetic, Kant makes claims about our cognition of space and about the properties of space, where “space” is understood to refer to an object of cognition and thus, something that has already gone through synthesis by the understanding. Kant's big claim is that in order to explain

⁵⁰ This letter is only mentioned, not reproduced, in the *Akademie* edition of Kant's writings. The translation I follow can be found on p. 335 of the *Correspondence* volume of the *Cambridge edition* of Kant's work. The letter ended up in the Historical Society of Pennsylvania, and the original text was first reproduced by Peter Remnant and Christoph E. Schweitzer under the title “A New Letter by Kant” in *Journal of the History of Philosophy* 3, no. 2 (1965): 243-5.

particular features of our cognition of space and these properties had by space, we must infer that space originates in our faculty of sensibility as an a priori intuition.⁵¹ Thus, even though we do not mentally “separate off” elements of our representation of space, as Kant suggested in the above passage from A22/B36, an analysis of the features of our representation of space, which has undergone intellectual processing, can reveal that this representation has an intuitive and a priori origin, if the relevant features of the representation can only be explained by the representation having such an origin.

For example, the motivating positive view behind Kant's argument in the first Exposition is that in order to have the experience of objects outside of us in different parts of space, the representation of space must already be a part of the synthesis that generates this experience and so the representation of space must come from a source that is antecedent to experience, i.e. a priori. Of particular interest for us are the properties of space to which Kant appeals in order to establish that space originates in an a priori source that is intuitive. For example, Kant appeals to the singularity of our representation of space, meaning both that we can only represent one space and that the representation of a part of space is dependent on the representation of the totality of space. The relevant representation of space must be produced by both the understanding and sensibility, so how does Kant show that a priori intuition is involved? The answer is that we can infer that an a priori intuition must be an essential source in our awareness of space, because intuition is the kind of representation that refers directly to exactly one object and because it, unlike conceptual representation, is capable of presenting an object that is infinite. Thus, even

51 Cf. Blomme, “The Completeness of Kant's Metaphysical Exposition of Space,” 147. The explanation in the above paragraph perhaps goes some way towards explaining Kant's *prima facie* bizarre use of phrases like “concept of space” in the Exposition; in these sections, the representation with which we are directly concerned is one that has been processed by the understanding.

though the understanding is involved in producing cognition of space, by looking at particular features of how we cognize space, we can reason that these features are only possible if an a priori intuition is a fundamental source in our cognition.

However, we soon face a serious problem. How is it that our a priori intuition of space presents space as a whole, especially when, as we learn in the fourth Exposition, space is infinite? It sounds as though we have an infinite representation in our minds that we view, when we contemplate space, especially since Kant describes space as an “infinite given magnitude” (A25/B39). To complicate matters further, in the Antinomies, Kant seems to entirely contradict this view of the magnitude of space. In the solution to the first Antinomy, Kant makes very clear that he does not believe that there is an actually infinite structure, space, that exists in our minds. There, Kant gives a number of negative characterizations of space including that “I cannot say the world is infinite in past time or in space. For such a concept of magnitude, as a given infinity, is empirical, hence it is absolutely impossible in regard to the world as an object of sense” (A520/B548). The only positive characterization of the entire sensible world that Kant can give is “only something about the rule in accord with which experience, suitably to its object, is to be constituted and continued” (ibid). The idea is that any spatial region we intuit can be considered as part of a larger spatial region, which in turn is part of another larger spatial region, *ad indefinitum*. This seems to directly contradict the claim that space is something *given* to us as infinite.⁵²

52 For an overview of the conflicts in Kant's account of space between infinity and constructivism and various attempts at resolving it, see Lydia Patton, “The Paradox of Infinite Given Magnitude: Why Kantian Epistemology Needs Metaphysical Space,” *Kant-Studien* 102, (2011): 273-89 and Vaihinger, *Commentar* II, 253-261. Vaihinger cites Gottlob Schulze as one of the first philosophers to explicitly draw out the conflict between the accounts of space in the Aesthetic and Antinomies (p. 254).

I think it is possible to provide a plausible reconciliation of Kant's statements about infinity in the Aesthetic and Antinomies. I hold that what Kant is discussing in these passages from the first Antinomy is the actual structure in which our intuitions are ordered. This structure, space, is something that is finite but can always be expanded to create a larger and larger space.⁵³ This is also what our a priori intuition of space refers to, as this is the structure that is generated and altered in accordance with the principles that constitute the a priori intuition of space. In the Aesthetic, Kant is also discussing the actually finite space that orders our intuitions, and when he talks about its infinite nature, he is analyzing its modal properties. Note that the key premise in the argument of the fourth Exposition is not that space is represented as an infinite given magnitude but that space is “thought as if it contained an infinite set of representations within itself” (A25/B40). This should be taken to mean that any representation of a particular space is considered to be something that can be expanded and decomposed indefinitely. The moral that Kant wants us to draw from this point is that an a priori intuition is responsible for space having these modal properties and so our a priori intuition of space constitutes a ground for the nature of space, the form of our empirical intuitions.⁵⁴

53 In the *Metaphysical Foundations of Natural Science*, Kant calls this space “empirical space” in contrast to a pure “absolute space”, which is “compared” to empirical space (Ak. 4:482).

54 Further support for the interpretation in this paragraph is found in Kant's essay on Kästner. There, Kant nicely describes the way in which geometry reconciles the finite nature of any space we experience with the infinitude of space itself.

To say, however, that a straight line can be continued infinitely means that the space in which I describe the line is greater than any line which I might describe in it. Thus, the geometer expressly grounds the possibility of his task of infinitely increasing a space (of which there are many) on the original representation of a single, infinite, subjectively given space. This agrees very well with the fact that *the geometrical and objectively given space is always finite. For it is only given in so far as it is generated. To say, however, that the metaphysical, i.e., original but merely subjectively given space, which (because there is not a plurality of them) cannot be brought under any concept capable of construction, but which still contains the ground of the possibility of all geometrical*

We will return to the content of the Expositions in the fourth chapter, when I present a solution to the Neglected Alternative. My goal here has only been to present an interpretation of a priori intuition and to give a sense of how this interpretation should view the particular arguments in the Aesthetic that try to establish that we have an a priori intuition of space. Though I obviously endorse the interpretation of a priori intuition presented in this chapter, I will consider alternative interpretations in the fourth chapter and their implications for the Neglected Alternative objection.

1.5 Conclusion

The bulk of this chapter has been devoted to explaining Kant's notion of “a priori intuition.” This task arose when we reconstructed the argument targeted by the Neglected Alternative and Kant employed the premise that we cannot have a priori intuitions of anything mind-independent. If the interpretation I have presented here is accurate, it should be clear why Kant holds this premise. Since a priori intuitions originate in the mind, and since a priori intuitions provide a ground for the objects of which they are intuitions, anything that we intuit a priori is mind-dependent. Thus we have provided Kant a *prima facie* defense against the

concepts, *is infinite, means only that it consists in the pure form of the mode of sensible representation of the subject, as an a priori intuition, and therefore as a singular representation, in which the possibility of all space, proceeding to infinity, is given* (Ak. 20: 420-1; with minor modification and my own emphasis, I follow Emily Carson's translation in her “Kant on Intuition in Geometry,” *Canadian Journal of Philosophy* 27, (1997): 497-8).

Neglected Alternative, though as we will soon see, Kant's critics have mounted serious challenges to this sort of defense. For the next two chapters, we will work to develop the strongest case for the Neglected Alternative that we can, and to do so, we will look to Hermann Andreas Pistorius and Friedrich Adolf Trendelenburg, the two most sophisticated and ardent advocates of the Neglected Alternative objection.

Chapter Two

H.A. Pistorius and the Origins of the Neglected Alternative

We begin our detailed consideration of the Neglected Alternative objection with Hermann Andreas Pistorius, the first philosopher to develop the objection and present it as a serious problem for the Kantian philosophy. In this chapter, we will focus on extracting and developing Pistorius's objections. I will argue that Pistorius presents two different versions of the Neglected Alternative that reflect his own vacillation between two different philosophical outlooks: Leibnizianism and empiricism. In addition, these two version of the Neglected Alternative are distinct from the ones developed by Trendelenburg and usually discussed in recent literature. After we present Pistorius's objections in this chapter, we will return to them and evaluate them in the fourth chapter.

Pistorius was a prolific reviewer for the *Allgemeine deutsche Bibliothek (AdB)*, an important journal in the early reception of Kant's Critical philosophy. Throughout the 1780s and well into the 1790s, Pistorius published numerous reviews of both Kant's work and other books discussing Kant's philosophy. As it turns out, many of Pistorius's best criticisms of Kant's philosophy are located in the unglamorous pages of reviews of secondary literature on Kant. Despite publishing innumerable reviews and developing original critiques of Kant's philosophy that are still widely debated today, his position as an anonymous reviewer, especially one geographically removed from the main philosophical hubs in Germany, brought him little recognition in his own lifetime. It was not even completely discerned which reviews were by

Pistorius until 1842.¹ Still, Pistorius received some recognition from Kant, though not by name. In the preface to the *Critique of Practical Reason*, Kant notes that he has tried to respond to the objection “of a certain reviewer of the *Groundwork of the Metaphysics of Morals*, one who is devoted to truth and astute and therefore always worthy of respect...”(Ak. 5:8-9). From the objection that he goes on to consider, it is clear that Kant is referring to Pistorius.²

The few commentators who have discussed Pistorius have agreed with Kant's positive judgment. He has been universally described as “*scharfsinnig*” or “insightful.”³ Still, one challenge with which any reader of Pistorius must grapple is that the content of his reviews can be extraordinarily dense. In his review of Schultze's book on Kant, for example, Pistorius fluidly moves back and forth between objections to Kant's view of affection, his view on the nature of the self, his views on space and time, his solution to the third antinomy, and his view on the validity of the categories. Here, we will specifically work to understand just Pistorius's discussion of the Neglected Alternative, but to better understand its context, we will first say a

1 G.C.F. Parthey's *Die Mitarbeiter an Friedrich Nicolai's Allgemeiner Deutscher Bibliothek* (Berlin: Nicolaische Buchhandlung, 1842) presents charts depicting which pseudonymous initials were used by which authors.

2 Decisive evidence that Kant is referencing Pistorius is found in Kant's notes for the preface in which he adds that this is a reviewer for the *Allgemeine deutsche Bibliothek*. Kant's praise for Pistorius is even more profuse in these notes (Ak. 21:416). In writing this, Kant was perhaps aware that Pistorius was the reviewer of the *Groundwork*, as Daniel Jenisch wrote to Kant in 1787, mentioning that Pistorius reviewed the *Groundwork* in the *AdB* and had found “many adherents” (Ak. 10:486, my translation). Pistorius's review of the *Groundwork* is found in *AdB* 66, (1786): 447-63. For the influence of Pistorius on both the second *Critique* and the second edition of the first *Critique* see Frederick Beiser, *The Fate of Reason* (Cambridge: Harvard University Press, 1987), pages 188 and 357 (note 116) as well as his *German Idealism*, 146-7.

3 Beiser, *The Fate of Reason*, 188; Benno Erdmann, *Kant's Criticism in der ersten und in der zweiten Auflage der Kritik der reinen Vernunft* (Leipzig: Leopold Voss, 1878), 106; Bernhard Gesang in the editor's introduction to Hermann Pistorius, *Kants vergessener Rezensent* (Hamburg: Felix Meiner Verlag, 2007), VII; Brigitte Sassen, *Kant's Early Critics*, 272; Hans Vaihinger, *Commentar II*, 143.

brief word about Pistorius's broadest concern with the Kantian theoretical philosophy: the division between appearances and things in themselves.

For Pistorius, the fatal flaw of Kant's system is the doctrine that our knowledge is limited to appearances and that we can never know mind-independent things in themselves. Over the course of multiple reviews, he criticizes the implications of this doctrine; he briefly raises the issue in his review of the *Prolegomena*, but he most fully develops his concerns about appearances, as well as the Neglected Alternative objection, in two reviews of books by Kant's disciples: a 1786 review of Johann Schultze's book on the first *Critique* and a 1788 review of L.H. Jakob's book on Mendelssohn's *Morgenstunden*.⁴ Pistorius's concerns arise when we investigate both the ontological and epistemic implications of Kant's system, especially the status of the cognizing subject. The problem is that the prerequisite for appearance, representation and thought, are *also* appearances according to Kant, since we cannot know the cognizing subject in-itself.⁵ The only cognizing subject that we can know anything about is a mere temporal appearance. But this situation quickly leads to an infinite regress. In order for an appearance to exist, there must be some subject to which it appears. If the subject is itself an appearance, then it must appear to some other subject; this process continues indefinitely for Kant, since we never

4 Pistorius, "Prolegomena zu einer jeden künftigen Metaphysik die als Wissenschaft wird auftreten können. Von Immanuel Kant...," *AdB* 59, (1784): 322-55; Pistorius, "Erläuterungen über des Herrn Professor Kants Kritik der reinen Vernunft von Joh. Schultze...," *AdB* 66, (1786): 92-123 (hereafter abbreviated with "Schultze Review"); and Pistorius, "Prüfung der Mendelssohnschen Morgenstunden, oder aller spekulativen Beweise für das Daseyn Gottes in Vorlesungen von Ludwig Henrich Jakob....," *AdB* 88, (1788): 427-470 (hereafter abbreviated with "Jakob Review"). The names of both philosophers, "Schultze" and "Jakob", vary in spelling; I follow the spellings used by Pistorius.

5 Pistorius, "Schultze Review," 94. The pagination is to the version originally printed in the *AdB*. Where available, I follow Sassen's translations of Pistorius; all other translations of Pistorius are my own.

reach a subject that is not an appearance (i.e. a transcendently real subject).⁶ Further, if we cannot know that we are the transcendently real subject that underlies appearances, then even Spinozism is a live possibility, and we face skepticism about our own existence.⁷

Pistorius explicitly dismisses Kant's distinction between *Erscheinung* (appearance) and *Schein* (illusion) as a means to avoiding any of these difficulties.⁸ There's a sharp ontological division in Kant between the subjective and things in themselves, and both *Erscheinung* and *Schein* are on the side of the subjective. The issues canvassed above can only be resolved by bridging the gap between the subjective and things in themselves and through knowledge of things in themselves. In other words, the relations between the subject and objects of cognition cannot be completely subjective or ideal; we need both the activity of a cognizing subject and real things in themselves that exist independently of the subject's activity.

2.1. Pistorius's Conception of Space

These concerns directly lead to Pistorius's alternative theory of space. Whereas Kant is said to maintain that space is grounded exclusively in the constitution of the subject, Pistorius thinks that a more plausible view is that space is what he calls a “relational concept”

6 For an in-depth discussion of Pistorius's criticism of Kant's views of appearance and specifically the issue of affection, see Bernward Gesang, “H.A. Pistorius: Ein unbekannter Kritiker Kants,” *Archiv für Geschichte der Philosophie* 80, (1998): 97-108.

7 See Paul Franks, *All or Nothing* (Cambridge: Harvard University Press, 2005), 93-98 for a discussion of Pistorius on the danger of Spinozism in Kant.

8 “Jakob Review,” 438-9. Pistorius also uses these terms interchangeably in his presentation of the Kantian philosophy.

[Verhältnißbegriff]. What this means is that there are two sources that contribute to the nature of space: not only the constitution of the subject but also the objects in themselves that appear in space. He sometimes expresses the same idea by holding that space is both subjective and objective. Despite the usual ambiguity of these terms, Pistorius gives them a fixed and constant meaning. For Pistorius, “subjective” means “relating to the mind” and “objective” means “relating to things in themselves.”⁹

This all may at first sound like it is consistent with Kant's own view. On “one-world” interpretations of Kant's transcendental idealism, things in themselves appear in space, and at least some facts about our experience of objects in space are grounded in things in themselves.¹⁰ So, the one-world interpretation seems to entail that space has relations to both the subject and things in themselves, which would make space both subjective and objective in Pistorius's senses of the terms. Even if we do not accept a one-world interpretation, Kant seems to think that things in themselves are in some way connected to appearances in space, and so things in themselves would have at least some responsibility for the external world in space that we experience. This again would lead us to the view that space is also objective in Pistorius's sense. However, as we will see, Pistorius thinks that space is grounded in things in themselves in a way that is stronger than the Kantian philosophy, on any plausible interpretation, would admit.

There are two ways in which Pistorius brings objective elements to his view of space that go beyond anything in Kant's theory. First, Pistorius often asserts that space is both a priori and empirical. By this he means that space, the structure in which we experience outer objects, is generated through both a priori elements found in the mind (subjective) and a posteriori

⁹ “Schultze Review,” pages 96 and 114.

¹⁰ See the discussion in chp. 1, pages 31f.

empirical elements that originate in mind-independent reality (objective). Not only are the objects that appear in space mind-independent, but some spatial properties had by objects, including geometrical properties, are partially determined by the objects themselves; they are not completely determined by the mind a priori, as he claims Kant holds.¹¹ As a result of this, space is objective in another way: it expresses or represents features of things in themselves. This does not mean that things in themselves are in space, but it is rather the Leibnizian view that space is a confused representation of non-spatial things in themselves.

This last point is essential: Pistorius does not hold that things in themselves exist in space. He states this unequivocally when he briefly discusses a Neglected Alternative hypothesis considered (and then rejected) by Jakob. Jakob considers the possibility that space and time exist both in the mind as the order of appearances and outside the mind as the order of things in themselves. In response, Pistorius says that there is an important difference between their hypotheses. He says, “according to my hypothesis there is to be found in the things in themselves merely an objective ground that in particularly formed and limited minds [Denkkraften], like the human mind, results in the representations of space and time” and that he is “in complete agreement with the philosophers, who deny that the predicates of space pertain to the things in themselves.”¹² There are two important points Pistorius makes in these passages. First, things in themselves are not hypothesized to be in space and time; things in themselves merely partially ground the representations of space and time in human minds. Second, there is a relationship between the human mind and things in themselves, whereby the things in themselves result in the mind representing things in themselves in space.¹³

11 I argue in chp. 4 that contra-Pistorius, Kant does not hold this view. See p. 133ff.

12 “Jakob Review,” 436; *ibid*, 437. Cf. Vaihinger, *Commentar* II, 145-6.

13 See Vaihinger, *Commentar* II, 146n for a list of subsequent philosophers who made similar

Pistorius does not spend much time discussing precisely which features of things in themselves are the ones that result in us representing things in themselves in space. Still, he gives the answer in passing twice in the “Schultze Review.” The main explanation is this:

Insofar as they [space and time] are grounded in what is subjective, namely, as I understand it, in the limitation of the human power of thought, they have the nature of a priori concepts, *but insofar as they are grounded in things in themselves or in the objective sphere, space in the actual multiplicity, and time both in the multiplicity and the actual variability of the represented things in themselves*, they must have similarities with empirical representations or concepts of experience.¹⁴

As we see, in the case of space, our representation of space is not only a priori but grounded in “the actual multiplicity” of things in themselves. A few pages later, Pistorius states that the concept of space “expresses multiplicity irrespective of variability.”¹⁵ Thus, by holding that things in themselves exist in a non-spatial multiplicity, Pistorius agrees with Kant (and Leibniz) that things in themselves are ultimately individuated entirely by their internal properties. Pistorius's clear departure from Kant is in his claim that our representation of space represents the multiplicity of things in themselves.

In order to better understand this last claim, we must look to the tradition from which Pistorius is drawing: the Leibnizian/Wolffian philosophy. Their view of space is concisely summarized in a letter from Leibniz to Clarke in 1716: “space denotes, in terms of possibility, an order of things that exist at the same time, considered as existing together without entering into their particular manners of existing.”¹⁶ In other words, for Leibniz, we employ space as an

claims about space.

14 “Schultze Review,” 100-1 (my emphasis; Sassen's translation).

15 Ibid, 104 (Sassen's translation).

16 “Leibniz's Third Letter, Being an Answer to Clarke's Second Reply” in *Leibniz and Clarke: Correspondence*, ed. Roger Ariew (Indianapolis: Hackett, 2000), 14.

ordering on a group of distinct objects that exist together at a particular time.¹⁷ Space is a confused and indistinct representation used by finite cognizers to perceive objects, but it “tracks” or expresses the fact that these objects exist together in a community, yet are separate entities. This picture of space also contains a story of how we acquire the concept of space. Leibniz presents a very detailed version in another letter to Clarke, but for our purposes we can consider Wolff’s much briefer explanation:

Now when many things that exist at the same time and are not identical are represented as external to one another, a certain order among them thereby arises such that when I take one of them as the first, I take another as the second, another as the third, yet another as the fourth, and so on. And as soon as we represent this order to ourselves, we represent space to ourselves.¹⁸

On this view, space is not something that exists in the mind antecedent to experience but instead arises from our creation of an ordering on objects that are external and distinct from each other at a particular time. Though Pistorius endorses the claim that space expresses or represents the multiplicity of things in themselves, as we will see, he does not endorse the Leibnizian view of how we acquire the concept of space.¹⁹

17 Baumgarten also expresses the same idea concisely in his *Metaphysica* (Halle, 1757): “The order of simultaneous things mutually posited outside of each other is space” (§239, reprinted and translated in Eric Watkins, ed., *Kant’s Critique of Pure Reason: Background Source Materials* (New York: Cambridge University Press, 2009), 104).

18 *Vernünfftige Gedancken von Gott, der Welt, und der Seele des Menschen, auch allen Dingen überhaupt* (Halle, 1751), §46 (Translated in *Background Source Materials*, 15). The parallel discussion by Leibniz is in his Fifth Letter (*Leibniz and Clarke Correspondence*, 45-7).

19 The Leibnizian view of time was brought up as a response to Kant’s *Inaugural Dissertation* in 1770 by both Mendelssohn and Sulzer (see my Introduction, 8f). Most notably, Mendelssohn mentions to Kant that the Leibnizian holds that time has both subjective and objective aspects and that the objective aspect is the succession of alterations (Ak. 10:115-6). In a much later lecture on metaphysics, Kant explicitly rejects the Wolffian view of space and time for not only intellectualizing space and time but for also providing a circular account of these terms, since concepts like “concurrent” and “successive,” which are used to define space and time, presuppose space and time (Ak. 29:982).

The primary place in which Pistorius discusses Leibniz's philosophy is when he defends the Leibnizian view of perception against the Kantian view. He illustrates both views by comparing our senses to a kind of glass. On the Leibnizian view “our senses are a dimmed and crudely ground glass through which our soul actually intuits things in themselves, although in dark and dim distance, now and then somewhat distorted, disguised, and disarrayed.”²⁰ On the other hand, the Kantian view holds that the senses

are a glass whose exterior has an entirely foreign painting, as it were, glued to it. It does not present the objective world at all, nor an aspect thereof, but a landscape that is completely isolated from it, although beautifully illuminated, well ordered in all its parts by means of understanding and its concepts, and excellently harmonized with our organs of sight to which alone it fits, for alone it is determined.²¹

Since the Leibnizian view allows us to have some access to the objects that exist independently of our senses, and the Kantian view ends up entirely cutting us off from the world outside of our senses, Pistorius suggests that we should accept the Leibnizian view of perception over the Kantian view. But in addition, Pistorius takes this argument further and intensifies his criticism by arguing that Kant effectively *eliminates* the things in itself.²² If things in themselves were to actually have a purpose within Kant's system, i.e. if we were to have any cognitive access to them, then they would have to be connected to our senses. However, this would mean that we intuit things in themselves in space and time, which would contradict Kant's claim that space and time are completely subjective, and so Kant cannot accept it. The upshot is that we should reject the Kantian view of space and time and the picture of perception that it entails, because it leads to the elimination of the thing in itself and reduces all of our knowledge to mere knowledge of

20 “Schultze Review,” 115 (Sassen's translation).

21 Ibid (Sassen's translation).

22 Ibid, 114-5.

appearances.

But what makes Pistorius's view of space an instance of the Neglected Alternative objection is that he argues that his view is consistent with the features of space that Kant presents in the Expositions of the Transcendental Aesthetic. Pistorius explicitly states this point after developing his account of space in the Schultze review:

And what is the purpose of all this? As a matter of fact, it is not to demonstrate that my concept of space and time must be the only true one, but only to show that it is a possible concept, that it withstands Mr. K.'s [Kant's] objections, that the phenomena and correct principles that he presents with respect to space and time are just as consistent with the presupposition that these concepts are not just subjective but objective as well, and consequently, that we are simply not forced to assume, with Mr. K., that space and time are only subjective forms of our sensibility and have nothing objective.²³

This is not merely an interpretive or logical point for Pistorius; the consistency of his view with Kant's claims about the features of space, the “phenomena and correct principles” that he presents, should lead us to accept Pistorius's view over Kant's.

Pistorius recognizes the danger of his argument for the Kantian philosophy. He states that “If this concept, namely that space and time are merely subjective forms of our sensibility, is not apodictically proven or provable, then the entire system, as apodictically proven, topples over and sinks down as a mere hypothesis.”²⁴ One consequence that Pistorius draws out of Kant's failure to prove that space is exclusively subjective is that the categories do not need to be considered exclusively subjective as well. What he has in mind is that if spatial appearances are at least partially objective, which Kant cannot rule out, then the understanding would have to guarantee that it harmonizes and conforms to these (partially) objective appearances, otherwise

²³ Ibid, 106-7 (Sassen's translation).

²⁴ “Jakob Review,” 432.

we would have to worry about conflicts between the laws of things in themselves and the laws of the understanding. Thus, the laws of the understanding should not be considered autonomous, purely subjective rules but rather mirrors of the laws that govern things in themselves, which would contain relations of “inherence, of causality, [and] of reciprocity.”²⁵ In this way, Pistorius's argument endangers not only the Aesthetic but the Analytic as well.

The rest of this chapter is devoted to figuring out the exact nature of Pistorius's version of the Neglected Alternative. I will argue that ultimately there are two distinct Neglected Alternative objections that can be extracted from Pistorius's reviews. These two different objections correspond to the two most important elements in Pistorius's theoretical philosophy: his Leibnizianism and his empiricism.²⁶ It is worth uncovering both of these objections not only because they differ entirely from the versions of the Neglected Alternative that have followed Pistorius, but because they will force us to reconsider pivotal aspects of Kant's argument in the Aesthetic, like the mechanism by which our representation of space expresses or represents an object and which features of spatial experience the a priori representation of space contributes.

2.2. The Leibnizian Neglected Alternative

²⁵ “Schultze Review,” 117 (Sassen's translation).

²⁶ The fact that both of these elements are found in Pistorius has led to minor controversy over how to classify him. Beiser and Sassen have grouped him with the empiricists, whereas Vaihinger reads him as a full-blooded Leibnizian (at least with respect to the Neglected Alternative). Recently, Gesang has chided those who read Pistorius strictly as an empiricist and has stressed that we must also recognize the Leibnizianism in his theoretical philosophy. See Gesang's Introduction in Pistorius, *Kants vergessener Rezensent*, IX.

As discussed above, Pistorius's view of space is Leibnizian at the very least insofar as it holds that space expresses features of non-spatial things in themselves, specifically the multiplicity of things in themselves. However, it is unclear if Pistorius endorses a Leibnizian explanation for *how* it is that space expresses these features of things in themselves. The Leibnizian explanation would appeal to a pre-established harmony between the relevant properties of space and the things in themselves, and a pre-established harmony entails a correspondence or similarity between the relevant properties of space and things in themselves. Leibniz himself usually explains “expression” or “representation” in terms of correspondence or similarity.²⁷ Consider the following representative passages:

It is sufficient for the expression of one thing in another that there should be a certain constant relational law, by which particulars in the one can be referred to corresponding particulars in the other.²⁸

One thing expresses another (in my terminology) when there exists a constant and fixed relationship between what can be said of one and of the other.²⁹

What is common to all these expressions is that we can pass from a consideration of the relations in the expression to a knowledge of the corresponding properties of the thing expressed.³⁰

27 Leibniz seems to use the terms “expression” and “representation” interchangeably. See, for example, *Monadology* §62 for a passage in which Leibniz talks about monads both expressing and representing the whole universe (reprinted and translated in *Philosophical Essays*, ed. Ariew and Garber (Indianapolis: Hackett, 1989), 221). We can characterize the relationship between these terms in Leibniz's philosophy more precisely by noting that Leibniz seems to understand his concept of expression as providing the explanation for how representation is possible.

28 “Metaphysical Consequences of the Principle of Reason,” in *Leibniz: Philosophical Writings*, ed. G.H.R Parkinson; trans. Mary Morris and Parkinson (New York: Dent, 1973), 176-77.

29 “To Arnould,” Oct. 9th, 1687. In *The Leibniz-Arnould Correspondence*, ed. H.T. Mason (New York: Manchester University Press, 1967), 144.

30 “What is an Idea?” in *Philosophical Papers and Letters*, ed. Leroy Loemker (Dordrecht: Kluwer, 1989), 207.

Though the existence of a pre-established harmony may mean that there is ultimately no sort of affection or physical contact between a representation and what it represents, our representations can give us knowledge of what they represent in virtue of correspondence between the representation and what is represented. Note the flexibility that the term “representation” has, according to Leibniz. A representation of x can represent multiple things, even things that are not identical to x . For example, a drawing of a particular person represents not only that person but every person who is sufficiently similar to the content in the drawing.

There is evidence that Pistorius holds a Leibnizian view of representation or expression. First, Pistorius sometimes favorably speaks of a pre-established harmony between our representations and things in themselves. For example, he suggests that it is a flaw of the Kantian view of space that it excludes the possibility of a pre-established harmony, and in a discussion of the categories, he explicitly accepts a pre-established harmony between the laws of our thought and things in themselves.³¹ In addition, he says that there must exist “similarities” between space insofar as it is grounded in things in themselves and empirical representations.³² This stops short of being an explicit endorsement of the Leibnizian view of expression, but the view is one towards which Pistorius seems inclined.

So far, however, we have an alternative view of space, not an objection to Kant. To turn this into a Neglected Alternative, Pistorius must argue that the Leibnizian view of space is consistent with the Expositions in the Aesthetic. If this is the case, then Kant cannot conclude in the Conclusions that “Space represents no property at all of any things in themselves nor any relation of them to each other” (A26/B42), because the Leibnizian view is an open possibility,

31 “Schultze Review,” pages 116 and 119.

32 Ibid, 100.

and on this view space does represent a property of things in themselves: their multiplicity. But in order for the Leibnizian view to be consistent with the Expositions, it must hold that space is an a priori intuition. This would involve a departure from what Leibniz and Wolff actually hold, but it is a departure that Pistorius is willing to make. Pistorius maintains that he agrees with Kant that space is an intuition, because he considers the principles related to space to be synthetic, and because he holds that space is a relation.³³ In addition, he holds that space is necessary and a priori. We are constrained to “posit” space with every outer appearance, and we know this not through discursive reasoning but directly through “the inescapable feeling of our limitation.”³⁴ Since we are finite creatures, we must always order outer objects in space, and since this constraint is completely due to the nature of the subject, space is independent of experience and a priori. As we will soon see, Pistorius's commitment to the a priori nature of space is significantly qualified. But for now, we have developed all of the pieces of the Leibnizian Neglected Alternative that Pistorius suggests.

Pistorius's Leibnizian Neglected Alternative: On the basis of the properties of space discussed in the Expositions, Kant concludes that space is something completely subjective. But it is consistent for space to have the properties discussed in the Expositions while it also being the case that space expresses or represents properties of non-spatial things in themselves in virtue of a similarity or correspondence between our representation of space and things in themselves. This shows that Kant's conclusion that “Space represents no property at all of any things in themselves nor any relation of them to each other”(A26/B42) is unfounded.

This version of the Neglected Alternative provides us with a clear challenge that we will take up in the fourth chapter. We will need to assess whether Kant says anything in the Expositions that

33 “Schultze Review,” 105. It is unclear why Pistorius thinks that the relational nature of space entails that it is intuitive. Leibniz holds that space is a relation, but it is doubtful that he would accept that space is intuitive in Kant's sense.

34 “Schultze Review,” 104 (Sassen's translation).

guarantees that our representation of space does not represent or express features of things in themselves. For now, we will turn to the more empiricistic side of Pistorius and consider a new way of developing the Neglected Alternative objection that is also suggested in his texts.

2.3. The Empiricist Neglected Alternative

Our discussion so far has glided over a significant aspect of Pistorius's criticism of Kant's view of space. Pistorius argues that there are two distinct sources that are together responsible for the concept of space that we have; the human mind is one source, but experience with mind-independent reality is one as well. To best understand this point, we should start with what Pistorius considers to be the main difference between his view of space and the Kantian view. On Kant's view, a single "innate" space is fundamental and all particular spaces can only exist through limiting this original space.³⁵ Pistorius thinks the story goes in reverse; the original concept of space in the mind is the concept of a particular space, which allows us to have experiences of particular spaces. After we have experienced a number of limited spaces, our imagination creates the concept of space as an infinite whole. So, on Pistorius's view, Kant's concept of space (i.e. the concept of space as an infinite whole) is partially a priori, since it depends on the concept of an individual space which exists innately in our minds, but also partially empirical, since experience of these individual spaces is required for us to perform the necessary construction of the concept of space.

³⁵ "Schultze Review," 105.

The reason that Kant, and other philosophers, have the picture backwards comes from a sort of philosophical arrogance. Philosophers of superior intellect have forgotten the work required to arrive at the concept of infinite space; they employ the end-product of their abstraction in their philosophical reasoning and forget how they originally arrived at this concept, since it was fairly easy for them. To see that this is the case, we need only to look at the experience of non-philosophers. In order to think of the concept of an infinite space, the layperson is required to explicitly ascend to this concept through a process of abstraction.³⁶ Pistorius rhetorically asks, “How many human beings can there possibly be who think the concepts of immeasurability and eternity accurately and correctly without admixture of limits?”³⁷ Since it is clear that most humans are constrained to think the concept of an infinite space through abstraction, Kant's doctrine that infinite space is a fundamental representation in the mind is implausible.

Pistorius goes on to appeal to more scientific empirical evidence to support his own conception of space, specifically the work of William Cheselden. Cheselden wrote about the experiences of a subject blind from birth, who was able to see for the first time after an operation.³⁸ Pistorius relays the experience of this patient: “After he could see, it seemed to him as if all visible objects lay immediately in his eye and touched it. Hence, he knew nothing of distance, and even less of its measure, and did not have as as it were innate geometry.”³⁹ He

36 Ibid, 106.

37 Ibid (Sassen's translation).

38 Cheselden, “An Account of some Observations...” *Philosophical Transactions* 402, (1728): 447–450. The debate over what it would be like for a blind person to gain sight traces back to the correspondence between Locke and William Molyneux in the late 1600s. For a brief introduction to the topic, see Degenaar and Lokhorst, “Molyneux's Problem,” *The Stanford Encyclopedia of Philosophy* (Fall 2011 Edition), ed. Edward N. Zalta, URL = <http://plato.stanford.edu/archives/fall2011/entries/molyneux-problem/>.

39 “Schultze Review,” 102 (Sassen's translation).

immediately generalizes this point, “Do we not all learn to judge distance and the size of distant objects gradually and through experience?”⁴⁰ His claim is that even though from birth, typical humans intuit objects in space, certain spatial properties like distance and size require significant experience before they can correctly be incorporated into the concept of space.⁴¹ These particular features of space, at least, are empirical and not a priori in origin. As a consequence of this argument, Pistorius implies that the science of geometry is not completely a priori; the case of Cheselden shows there is no “innate geometry.”

At this point we may object that Pistorius seems to be providing a completely different view of space rather than a neglected view that is supposed to be ultimately consistent with Kant's fundamental claims about space. Thus far, Pistorius has seemed to endanger both Kant's claim that the whole of space is necessarily represented prior to its parts and Kant's claim that geometry is a necessary and certain science, since he has inferred from Cheselden's case that there are empirical elements in geometry. However, in the case of the priority of the totality of space over its parts, Pistorius agrees with Kant that there is a concept of space in which the entirety of space is prior to its parts and that we can even use this concept to perform constructions and assign locations to objects.⁴² The disagreement with Kant is simply about the origin of this conception of space. Similarly, Pistorius does not think his denial of an innate geometry should endanger geometry's status as certain and necessary. He argues that once we acquire the “concept of a general space” through abstraction, we can employ this concept to perform geometrical constructions through intuition, and this would provide us with the desired certainty and necessity, since these constructions are created by ourselves. Echoing Kant's own

40 Ibid (Sassen's translation).

41 For my interpretation of Kant's view on how objects acquire such properties, see chp. 4, 133ff.

42 “Schultze Review,” 102.

characterization of the a priori, Pistorius says that “What we ourselves contribute to these constructions must surely be valid of them; they must be what we make them.”⁴³ Thus, despite appearances, Pistorius thinks he can save the lofty status that Kant assigns to geometry.

The Neglected Alternative objection that arises from this view is that Kant overlooks the possibility that even though space is partially subjective, things in themselves are *causally* responsible for some features of space like size and distance; in this way, space expresses properties of things in themselves.⁴⁴ Additional textual support for finding this objection in Pistorius comes from his descriptions of space. For example, he describes space and time as lying “between our activity and its objects as the unifying and connecting middle ground (between what is subjective and what is objective).”⁴⁵ Pistorius also talks about space “arising” [*entstehen*] from an objective ground in the things in themselves and states that the representations of space and time would not arise, “if there did not lie in the objects themselves a ground and inducement [*Veranlassung*].”⁴⁶ Pistorius's choice of example, as well, suggests that things in themselves cause space to have certain features. He illustrates his view of space as both objective and subjective by appealing to the example of taste. The taste of sweetness or bitterness is subjective in that it depends on the constitution of the human tongue, but it is objective in that it depends on the properties of the object that affects the tongue. Since this is supposed to be analogous to the case of space, it suggests that things in themselves contribute to the nature of space through affection or causation. Finally, in a later review, Pistorius states that the view that

43 Ibid, 102-3 (Sassen's translation). See Bxii.

44 This is not to say that things in themselves have properties like size and distance. Rather, things in themselves have properties that result in us representing things in themselves as having properties like size and distance, when they affect us.

45 “Schultze Review,” 100 (Sassen's translation).

46 “Jakob Review,” pages 437 and 434, respectively.

space is both subjective and objective is the view of every “reasonable empiricist,” which suggests that Pistorius's own view may involve representation through causation rather than through pre-established harmony.⁴⁷

What is suggested, then, is that space represents things in themselves because of a causal relation that connects things in themselves to space: specifically, things in themselves cause space to have certain features, and in virtue of this causation space represents things in themselves. There need not be any sort of similarity between the nature of things in themselves and space; the causal connection is all that matters for representation. Though such causal views of representation have received strong support in recent decades, we can also look to Kant himself to find the view. Recall that at the outset of the *Aesthetic*, he says that an empirical intuition is an intuition of a particular object in virtue of that particular object affecting us and causing us to have a representation. Empirical intuitions are a kind of representation, and they represent their objects through being caused by their objects. My suggestion is that we can find a similar characterization of the mechanism by which representations relate to objects in Pistorius. Since he argues that space is partially caused by things in themselves, he is in a good position to charge Kant with unjustifiably overlooking the possibility that space represents things in themselves.

Therefore, we have considered enough evidence from Pistorius to suggest a new form of the Neglected Alternative objection.

Pistorius's Empiricist Neglected Alternative: On the basis of the properties of space discussed in the Expositions, Kant concludes that space is something completely subjective. But it is consistent for space to have the properties discussed in the Expositions while it also being the case that space expresses or represents properties

⁴⁷ Pistorius, “Schmid, Karl Christ...” *AdB* 88, (1789): 105.

of things in themselves, in virtue of things in themselves causing certain features of space. This shows that Kant's conclusion that "Space represents no property at all of any things in themselves nor any relation of them to each other"(A26/B42) is unfounded.

2.4. Conclusion

Though they both pose challenges to Kant's argument in the Aesthetic, the Leibnizian and empiricist formulations of the Neglected Alternative cannot be reconciled; they each posit different mechanisms by which representations relate to their objects. The Leibnizian formulation holds that they relate through similarity or correspondence and the empiricist formulation holds that they relate through causation or affection. Pistorius's reviews are rich enough to provide us with two completely different ways of developing the Neglected Alternative objection, but Pistorius is not a systematic philosopher, and he gives us little reason to think that one formulation should be considered his "true" formulation of the Neglected Alternative.

These two formulations of the Neglected Alternative developed in this chapter raise two specific issues. First, the Leibnizian formulation raises the question of whether Kant rules out the possibility that space represents features of things in themselves in virtue of correspondence or similarity between the representation of space and the properties of things in themselves. Second, the empiricist formulation requires that we consider the possibility that some features of our

representation of space are caused by things in themselves and in virtue of this, space represents properties of things in themselves. Before addressing these issues, we will consider another take on the Neglected Alternative from Friedrich Adolf Trendelenburg. Trendelenburg's important departure from Pistorius is that he is willing to not only hold that things in themselves have properties similar to the spatial properties of experience but that in some sense, the same spatial properties that exist in experience also exist in completely mind-independent reality.

Chapter Three

*Trendelenburg and his Third Alternative*¹

The goal of this chapter is primarily exegetical: I will present and explain Friedrich Adolf Trendelenburg's version of the Neglected Alternative charge against Kant. This is an important task for a number of reasons. First, Trendelenburg, by some distance, is the philosopher to present the most thorough and developed version of the Neglected Alternative to date. He presents a fairly brief version of the objection in his *Logische Untersuchungen* but substantially builds upon it in his essays against Kuno Fischer.² Second, Trendelenburg goes into the greatest detail about the *importance* of the alternative that Kant is charged with neglecting; in the *Logische Untersuchungen*, Trendelenburg develops a philosophical system that, in fact, requires the alternative that space is both subjective and objective. Finally, Trendelenburg's philosophy is of independent historical and philosophical interest, and my discussion here will help to illuminate a part of it.³

1 A modified version of this chapter appears under the title “F.A. Trendelenburg and the Neglected Alternative” in the *British Journal for the History of Philosophy* (forthcoming).

2 The *Logische Untersuchungen* (Leipzig: S. Hirzel) were published in three editions: 1840, 1862, and 1870; each edition has two volumes. Many of the additions in the later editions involve discussions of and references to relevant contemporary literature, though entirely new sections are also added in the second volume. For the purposes of the Neglected Alternative, the relevant content is constant throughout the editions. In this chapter, I will cite the second (1862) edition, since it is the one that instigated the famous controversy with Fischer. The later essays against Fischer are “Ueber eine Lücke in Kants Beweis von der ausschliessenden Subjectivität des Raumes und der Zeit” in *Historische Beiträge zur Philosophie* (Band III) (Berlin: G. Bethge, 1867), 215-76 and *Kuno Fischer und sein Kant: eine Entgegnung* (Leipzig: S. Hirzel, 1869).

3 At the very least, Trendelenburg is of interest because of the impressive list of philosophers on whom he had a direct influence. These include Franz Brentano, Hermann Cohen, Wilhelm Dilthey, Rudolf Eucken, and Søren Kierkegaard.

In the first section, we will begin by presenting Trendelenburg's Neglected Alternative objection, as it is formulated in his *Logische Untersuchungen*, and in the second section we will briefly discuss some of Kuno Fischer's criticisms of Trendelenburg's objection. In the third section, we will look beyond the *Logische Untersuchungen* to further refine Trendelenburg's objection; ultimately we will develop two possible interpretations of the objection. In the fourth section, we will very briefly look back to the *Critique of Pure Reason* for a preliminary assessment of the extent to which Trendelenburg's objection succeeds in finding a target. In the fifth section, we will wrap up various issues surrounding our understanding of the alternative view of space that Trendelenburg endorses. In the next chapter we will more fully evaluate whether Trendelenburg's objection succeeds. At the end of this chapter is a brief appendix that discusses Trendelenburg's view of necessity and an objection to transcendental idealism's ability to account for necessity.

3.1. *Logische Untersuchungen*: First Formulation of the Objection

Before considering Trendelenburg's formulation of the Neglected Alternative, we should briefly explicate the context that surrounds it: namely, Trendelenburg's own philosophical system as presented in the two volume *Logische Untersuchungen*. Originally published as a nearly 700 page tome in 1840, it was revised and expanded in 1862 and 1870, eventually reaching over 900 pages. In this work, Trendelenburg endeavors to create a system of “fundamental philosophy,” or

a “foundational science,” which would provide a basis for all particular sciences.⁴ It is important to emphasize, however, that although Trendelenburg's goal is to unify and find a foundation for the sciences, he has no intention of rebuilding them from the ground up or revising them in any significant way. He takes particular sciences as giving us secure results, and the task of philosophy is to find the underlying logic and metaphysics of these sciences, resolve disputes between the sciences, and ultimately show how they are unified.⁵ Trendelenburg holds that knowledge is only possible through the unification of thought and being; this conception of knowledge expresses the idea that knowledge is about the world that exists independently of our minds, but for the mind to grasp this world, there must be some common element found in both mind and world. Especially in light of the organic worldview that he goes on to develop, Trendelenburg's philosophy echoes Schelling's dictum that “Nature should be mind made visible, mind the invisible nature.”⁶ Accordingly, the central task of Trendelenburg's system is to explain how in general the unification of thought and being occurs.⁷

In the second and third chapters of his *Logische Untersuchungen*, Trendelenburg discusses two methods that he argues have been failures at grounding foundational science. The first method is what Trendelenburg calls “pure formal logic” and the second method is the dialectical method. He describes formal logic as “want[ing] to grasp the forms of thought in and for themselves, without inspecting the content in which these forms appear. It wants to

4 *Logische Untersuchungen* (Vol. 1, 1862), 14. Hereafter, I will abbreviate references to this work with “LU, page number.”

5 See Beiser, *Late German Idealism: Trendelenburg and Lotze*, (New York: Oxford University Press, 2013), especially p. 28-31 for discussion of Trendelenburg's overall project and its relation to the sciences. See also Köhnke, *Entstehung und Aufstieg des Neukantianismus* (Frankfurt a.M.: Suhrkamp, 1986), p. 24-5 and 35-8.

6 *Ideen zu einer Philosophie der Natur*. In *Sämmtliche Werke* (Zweiter Band), ed. K.F.A Schelling (Stuttgart: J.G. Cotta, 1857), 56.

7 *LU*, 11-12; 135-6.

understand the concept, the judgment, and the inference based alone on the activity of thought as it relates to itself.”⁸ Trendelenburg explicitly identifies himself as primarily engaging with two philosophers, who advocate formal logic: August Twisten, a follower of Schleiermacher, and Moritz Wilhelm Drobisch, a follower of Johann Herbart.⁹ The upshot for Trendelenburg is that the systems of formal logic presented by these philosophers do not provide an adequate basis for first philosophy, because they raise metaphysical questions that they do not provide the resources to address and that must be addressed by first philosophy.¹⁰ For example, they rely on the concept of negation but do not provide an adequate explanation of what negation really is. More generally, philosophical systems of formal logic lack the resources to investigate the origins of their concepts.¹¹ Thus, formal logic must either be abandoned or supplemented, if we are to establish a system of first philosophy.¹²

In the next chapter, which spans nearly a hundred pages in the second edition, Trendelenburg argues that dialectic cannot provide an appropriate foundation for philosophy either. Trendelenburg's primary target is Hegel himself, though he also critiques a number of other Hegelians in some detail. The most notorious of these criticisms is the harsh line by line

8 *LU*, 16.

9 Herbart himself appears in the *Logische Untersuchungen* as an essential philosopher for Trendelenburg. At the beginning of the work, Trendelenburg characterizes his system as tracing a path through the Hegelian and Herbartian schools (vii). It is also noteworthy that Trendelenburg devotes far more pages in the *Logische Untersuchungen* to discussing Herbart's view of space and time than he spends discussing Kant's view.

10 *Ibid*, 35.

11 *Ibid*, 24-6.

12 For further discussion of Trendelenburg on formal logic, see Risto Vilkkio's "Trendelenburgs Kritik der Herbartschen Logik und ihr Einfluß auf die Reform der Logik," in *Friedrich Adolf Trendelenburgs Wirkung*, ed. Gerald Hartung and Klaus Köhnke (Eutin: Eutiner Landesbibliothek, 2006), 43-54. See also Stephan Käufer, "Hegel to Frege: Concepts and Conceptual Content in Nineteenth-Century Logic," *History of Philosophy Quarterly* 22, (2005): 270-77.

refutation of Kuno Fischer's dialectic, added in the second edition, which was the main catalyst of the *Streit* between Fischer and Trendelenburg that will be discussed shortly. One important thread in his criticism of dialectic is that the sorts of progressions through concepts like “Being,” “Negation,” and “Becoming,” which are endorsed as presuppositionless by the dialectical philosophers, have at least one important presupposition: the existence of motion.¹³ After rejecting both formal logic and dialectic, Trendelenburg goes on to hypothesize that motion [*Bewegung*] is the fundamental force that unites thought and being, and he therefore makes motion the starting point of his philosophy.¹⁴ Trendelenburg develops his view of motion in the remainder of the first volume of the *Logische Untersuchungen*, and in the second volume the teleological aspect of motion is elucidated.

On Trendelenburg's view, motion exists both in the human mind and in mind-independent reality. Trendelenburg goes on to argue for a dynamical view of space and time, where space and time are considered not to be finished products but are instead generated by motion.¹⁵ The result is that since motion exists both in the human mind and outside of it, motion generates space and time, both as ideal in the human mind through constructive motion and as real through the motion that exists independently of the human mind in reality. Trendelenburg realizes that this straightforwardly contradicts the transcendental idealism founded by Kant and endorsed by many nineteenth century German philosophers. According to transcendental idealism, space and time

13 For further discussion of Trendelenburg on dialectical philosophy see Hans-Jürgen Lachmann “Über den Anfang der Logik und die Logik des Anfangs – Anmerkungen zu Trendelenburgs Hegelkritik,” in *Trendelenburgs Wirkung*, 13-42 and Beiser, *Late German Idealism*, 59-68.

14 See especially *LU*, 136-40, where Trendelenburg argues that an action or activity [*Thätigkeit*] must be what unites thought and being and *LU*, 141-54 for the argument that this unifying activity is motion.

15 He argues further that even if space and time were finished products, motion would be required to give unity to each of them (*LU*, 149).

only have validity for representations of the human subject and have absolutely nothing to do with anything that exists completely independently of human cognition. If Trendelenburg's view of space is accurate, then it is essential that he persuade his reader that transcendental idealism is inaccurate.

In a very dense section of the sixth chapter of the *Logische Untersuchungen*, where he attacks the Kantian view of space and time, Trendelenburg presents a variety of reasons to reject transcendental idealism. Some of these reasons relate to the consequences of transcendental idealism; he argues that it makes applied mathematics impossible, that it cannot explain the existence of motion, that it undermines the certainty and necessity of sciences like geometry and physics, and that what it gives us are ultimately illusions.¹⁶ He also attacks the coherence of Kant's transcendental idealism – specifically its ability to make sense of the infinitude of space and time. But the objection that concerns us here, the Neglected Alternative objection, is that Kant's argument in the Transcendental Aesthetic fails to establish the truth of transcendental idealism in the first place. For Trendelenburg, the Neglected Alternative forms the foundational objection to Kant's entire theoretical philosophy.

After discussing his motivations for considering the Kantian view of space and time – namely, that it is an important basis for much recent philosophy and that it conflicts with his own view – Trendelenburg begins with a short summary of the Metaphysical Expositions.¹⁷ He takes Kant to conclude from the Expositions that space has three characteristics: it is a priori, it is necessary, and it is an intuition. The consequence of this view is that space is “the subjective

¹⁶ See *LU*, 158-62. The issue of the necessity of the sciences is discussed in the appendix at the end of this chapter.

¹⁷ *LU*, 156-8.

condition through which alone outer intuition is possible for us.”¹⁸ Trendelenburg says that Kant concludes from this characterization of space that space is something subjective and not objective, which is a skeptical result. He identifies a deep urge to know the thing in itself and says that “it is the tense nerve [*spannende Nerv*] in all cognition that we want to reach the thing, as it is; we want the thing, not ourselves.”¹⁹ However, if space and time are just products of the self, then we are trapped in the representations of our own minds.

This is where Trendelenburg states the Neglected Alternative objection for the first time. He returns to the Metaphysical Expositions and considers them in order. For each Exposition, he argues that it does not warrant the conclusion that space is exclusively subjective. For example, he looks at the first Exposition and concedes that space and time exist in us a priori antecedent to experience, but in Kant's proof of this “there nowhere emerges a thought that prevents space and time from being at the same time something outside of human intuition. This exclusive 'only' in the claim that space and time are *only* subjective is not justified.”²⁰ The stories are similar with the other Expositions; after discussing the second Exposition he acknowledges that it shows that space and time are subjective, but he asks “what prevents them from being objective at the same time?”²¹ After reviewing all of the Expositions, he gives the classic statement of the Neglected Alternative:

Even if we accept the arguments that demonstrate that space and time are subjective conditions, which precede perception and experience in us, there is not a hint of a proof that they could not at the same time be objective forms as well.²²

18 Ibid, 157. Cf. *Critique of Pure Reason*, A26/B42.

19 *LU*, 161-2.

20 Ibid, 162.

21 Ibid.

22 Ibid, 163. This quotation is also translated in M.J. Scott-Taggart. “Recent Work on the Philosophy of Kant,” *American Philosophical Quarterly* 3, (1966): 184 and has been reprinted

The neglected hypothesis is that space could have something of a dual-nature. It could exist both as an a priori intuition in our minds and as an “objective form” - a structure that orders the things in themselves, the objects that exist outside of us and independently of us. In addition, Kant's argument not only fails to rule out this possibility, but Kant “hardly thought of the possibility.”²³

Though this hypothesis is intriguing, it is clearly in need of more development, and Trendelenburg tells us a little bit more about it in the *Logische Untersuchungen*. After reiterating his conception of knowledge as uniting thought and being, this time in terms of a “harmony” between the two, he says that Kant rules out the possibility of an agreement between space and the things in themselves.²⁴ However, Trendelenburg quickly turns his attention to other issues in Kant's view of space and time, like the nature of motion and the problems concerning the infinitude of space and time. This leaves us with at least a couple unanswered exegetical questions: how does Trendelenburg understand the terms “subjective” and “objective?” What sort of agreement does Trendelenburg think there may be between space and things in themselves? We will have to investigate other sections of the *Logische Untersuchungen* and his subsequent texts for answers. Still, for our purposes, Trendelenburg has made the crucial claim: that there is a logical gap in Kant's argument; specifically, it fails to rule out the alternative that

in various recent articles on the Neglected Alternative.

²³ *LU*, 163.

²⁴ *Ibid.* In this context, Trendelenburg usually just uses the term the “things” [*die Dinge*] rather than the Kantian “things in themselves” [*Dinge an sich*] to refer to the objects that exist absolutely independently of ourselves. Here, I keep with the Kantian terminology in describing Trendelenburg's view. Cf. Kuno Fischer, *Geschichte der neuern Philosophie: Kants Vernunftkritik und deren Entstehung* (Dritter Band) (Heidelberg: Friedrich Bassermann, 1869), vi and C. Grapengiesser. *Kant's Lehre von Raum und Zeit; Kuno Fischer und Adolf Trendelenburg* (Jena: Friedrich Mauke, 1870), 68. See also *LU*, 340 for further discussion of “thing.”

Trendelenburg describes.

3.2. Kuno Fischer's Counter-Attack

Trendelenburg surely did not anticipate it, but his discussion of the Neglected Alternative in the *Logische Untersuchungen* ended up being just the first salvo in a long battle over this objection. Trendelenburg's criticisms of Kant's view of space, which were all present in the first (1840) edition of the *Logische Untersuchungen*, received scant attention until 1865, a few years after the publication of the second edition of this work.²⁵ This is the year that Kuno Fischer published his *System der Logik und Metaphysik oder Wissenschaftslehre: Zweite völlig umgearbeitete Auflage*.²⁶ Fischer counters the attacks from Trendelenburg by devoting a section to an overview and critical evaluation of Trendelenburg's philosophy, specifically his view of motion and his criticisms of the Kantian view of space and time. The same philosopher whom Trendelenburg belittled as finding contradictions in concepts due to contradictions in his own mind would ultimately lure Trendelenburg into a prolonged debate over the accuracy of his

25 This is not to say that the first edition of the *Logische Untersuchungen* as a whole was ignored. According to Klaus Köhnke, Trendelenburg's criticisms of Hegelianism were widely considered to be successful. See Köhnke, *Entstehung und Aufstieg des Neukantianismus*, 56. For further evidence see the references in Beiser, *Late German Idealism*, 59n. See also George Morris, "Vera on Trendelenburg," *Journal of Speculative Philosophy* VIII, (1874): 93 for the claim that Trendelenburg was the philosopher most responsible for the diminution of Hegel's logic.

26 An updated version of his earlier *Logik und Metaphysik oder Wissenschaftslehre: Lehrbuch für akademische Vorlesungen* (Stuttgart: Scheitlin, 1852), the work Trendelenburg criticizes in his second edition of the *Logische Untersuchungen*.

Neglected Alternative objection.²⁷

Fischer fires off a number of objections against Trendelenburg, both to his system as a whole and to his Neglected Alternative objection. Here, I will only consider the objections related to the Neglected Alternative. Even so, the debate between Fischer and Trendelenburg quickly balloons into a number of different issues, so to focus our discussion, I will begin by mentioning two important objections from Fischer, only to set them aside and consider them more fully in a later chapter.²⁸ First, Fischer disputes Trendelenburg's claim that Kant nowhere considers Trendelenburg's alternative, because, according to Fischer, Kant actually *endorses* this alternative in the pre-Critical essay “Concerning the Ultimate Ground of the Differentiation of Directions in Space” (Ak. 2: 375-84). Fischer holds that in this essay, Kant considers space to be both intuition and something real at the same time.²⁹ This marks the beginning of a search that sweeps Kant's entire corpus for a clear passage that demonstrates an awareness of Trendelenburg's alternative. Second, Fischer looks beyond the Aesthetic to argue that Kant provides additional, “indirect” proofs of transcendental idealism. In the solution to the Third Antinomy, Kant demonstrates that space and time must not exist outside of the subject in appearance and structure the transcendently real subject in order for freedom to be possible.³⁰ In addition, as Kant demonstrates in the Second Antinomy, the fact of the infinite divisibility of matter entails that space is transcendently ideal.³¹ If Trendelenburg is to convince us that Kant

²⁷ *LU*, 124. Trendelenburg also says it would be a “tragedy of logic” if Fischer's dialectic were accurate (*LU*, 122).

²⁸ See my chapter 5 for a discussion of other Critical passages where Kant directly argues against the existence of any spatial transcendently real structures.

²⁹ *System der Logik und Metaphysik*, 175.

³⁰ *Ibid*, 179. See *Critique of Pure Reason*, A532-558/B560-586. For further discussion see my chp 5, section 3.

³¹ *System der Logik und Metaphysik*, 179. See *Critique of Pure Reason*, A523-528/B551-556. For further discussion see my chp 5, section 4.

does not have the resources to rule out his alternative, then he must consider not only the argument of the Aesthetic, but these indirect proofs as well. Still, I will ignore these issues for now, since they draw our attention away from the Aesthetic. Here, we will confine our discussion to just the charge that Kant's argument in the Aesthetic fails and that it fails because it overlooks Trendelenburg's alternative.

To this end, there are two pertinent aspects of Fischer's discussion. Fischer, first, reconstructs Kant's argument in the Transcendental Aesthetic to demonstrate how Kant is justified in concluding that space is merely an a priori intuition. He sees the argument as proceeding in three stages. First, Kant shows that space is not an acquired representation but is instead "original" [*ursprünglich*]. Second, he shows that this original representation is an intuition, rather than a concept. Finally, he shows that this intuition of space exhausts the nature of space and that space is nothing independently of this intuition. This last point is for the reason suggested by Kant in his "Conclusions from the above Concepts" (A26/B42): if space were something that existed independently of us, our knowledge of it would have to come from experience. This would eliminate the possibility of a priori knowledge of mathematics, which in turn would destroy the necessity and universality of mathematics.³² Further, Fischer argues that the Critical Kant ultimately does hold a view on which space is both subjective and objective. As transcendently ideal, it is subjective, but space also is objective in that it has "objective validity," which signifies that space has a universal application to appearances.³³

Fischer also goes on the offensive by attacking the coherence of Trendelenburg's alternative. He begins with a nice summary of Trendelenburg's view:

³² *System der Logik und Metaphysik*, 175.

³³ *Ibid*, 178.

Motion generates space as an intuition in thought and at the same time it generates space as reality in being. There is, therefore, a space in thought and a space in actuality [*Wirklichkeit*]. Both are independent of each other in their generation, [but] both are similar to each other in their essence. Thus, in a way, space exists in two instances: one in us and one outside of us.³⁴

However, despite the way Trendelenburg conceives of his own alternative, Fischer thinks that the alternative describes a scenario in which there is really only *one* space. The real, mind-independent space is the original, fundamental space, and the space of intuition is merely a copy of the original space and is dependent on the original space. Fischer's point seems to be that if one space is the structure of the real, mind-independent objects, then the space that our minds create through intuition only has validity insofar as it accurately represents the space that orders the real objects. This again raises the problem of pure mathematics. If geometry is about space, and the real space is something that exists independently of us and is not an a priori intuition, then geometry as a necessary and universal science is thrown into doubt, or so Fischer worries.

This last objection and Trendelenburg's own view both need to be fleshed out a bit more, before we can judge the significance of this objection for Trendelenburg. Trendelenburg will respond to these points from Fischer and will further develop his view, so a complete evaluation of Trendelenburg will need to wait until we have a fuller picture of his own objection to Kant and his alternative. Since all of the main issues are on the table, it is now the time to begin filling in these details.³⁵

34 Ibid, 176.

35 For readers interested in the complete blow-by-blow account of the Trendelenburg/Fischer *Streit*, see Christopher Adair-Totef, "The Neo-Kantian *Raum* Controversy," *British Journal for the History of Philosophy* 2, (1994): 131-148; Beiser, *Late German Idealism*, 107-20; and E. Bratuscheck, "Kuno Fischer und Trendelenburg," *Philosophische Monatshefte*, V. Band, Sommersemester (1870): 279-323.

3.3. The Possibility of a Space, both Subjective and Objective

We will begin with Trendelenburg's counter-interpretation of Kant. First, in "Ueber eine Lücke in Kants Beweis von der ausschliessenden Subjectivität des Raumes und der Zeit,"

Trendelenburg provides his own reconstruction of Kant's argument in the Aesthetic that makes the supposed gap more apparent. Kant is said to argue in this way:

- 1) Space and time are necessary and universal.
- 2) If space and time are necessary and universal, then they are a priori.
- 3) If space and time are a priori, then they are subjective.
- 4) If space and time are subjective, then they are not also objective.
- 5) So, space and time are subjective and not objective.³⁶

One clear problem with this reconstruction is that this line of argument is nowhere explicitly made in the first Critique. In particular, Kant does not directly spell out an account of how space has the property of being subjective and lacks the property of being objective, at least in those specific terms.³⁷ Therefore, we must first look to Trendelenburg, not Kant, to make any sense of the reconstruction; we can no longer avoid the question: how does Trendelenburg understand the terms "subjective" and "objective?"

³⁶ "Ueber eine Lücke," 228.

³⁷ Cf. Grapengiesser, *Kant's Lehre von Raum und Zeit*, 5. Though Kant does not directly describe them as subjective in The Aesthetic, he does make comments such as that space and time belong to "the subjective constitution of our mind" (A23/B37-8) and that they are "subjective representations" and "conditions" (A28/B44). In the later essay "What Real Progress has Metaphysics Made in Germany since the Time of Leibniz and Wolff?" Kant more directly describes space as subjective. See Ak. 20:269.

Trendelenburg most explicitly tries to clarify his conception of the subjective and objective towards the beginning of the “Ueber eine Lücke” essay. Here, Trendelenburg first tells us that these terms do not exclude each other and can be simultaneously instantiated by the same object. He goes on to characterize these terms as “relations,” [*Beziehungen*] and crucially for our purposes, he states that these terms denote “only an origin and the thereby conditioned validity [*Geltung*].”³⁸ This characterization is still somewhat unhelpful, because Trendelenburg ascribes two aspects (origin and validity) to these terms that could in principle come apart. We find some help, though, in Trendelenburg's examples. The primary example he appeals to are mathematical figures, which are claimed to be both subjective and objective.³⁹ For example, when we ask what the shortest distance is between two points, and we see through the act of construction in our minds that this distance is a line, this line is subjective; but it also becomes objective when we draw this line on a piece of paper. Note that both the process for creating a subjective line and an objective line obviously involve the activity of motion, which points to a unity in the object of thought and the object in reality. In the important case of space and time, Trendelenburg says that these representations are subjective, insofar as they “have an origin in the activity of our mind and as we utilize them as forms of this origin.”⁴⁰ This corroborates his earlier claim that to call a representation subjective (or objective) is to make a claim both about its origin *and* its validity or applicability.⁴¹

There is one more detail to add to Trendelenburg's understanding of objectivity. He goes

38 “Ueber eine Lücke,” 222.

39 Ibid. The examples he uses are first introduced in a discussion of Goethe on p. 219-20.

40 Ibid, 223.

41 Vaihinger argues that Trendelenburg's combining of issues of origin with issues of validity leads Trendelenburg's argument to become incoherent. See Vaihinger, *Commentar* II, 136-8. However, Vaihinger goes on to reformulate Trendelenburg's argument and ultimately agrees that the Neglected Alternative objection Trendelenburg had in mind succeeds.

on to say that the objectivity of space arises in the following way: the same universal motion that is responsible for generating the a priori representation of space in our minds also exists among the things in themselves, and this leads to a correspondence between our a priori representation of space and “something in the things [in themselves].”⁴² In virtue of this correspondence, our representation of space applies to things in themselves; correspondence is thereby the mechanism responsible for a subjective representation having application or validity for objective things in themselves. Since motion is the common activity that makes the correspondence possible, space provides yet another example of the way in which motion acts as a unifying principle between what we produce in thought and what exists independently of our minds in reality.

That is the end of the textual clues that Trendelenburg leaves us. The major problem now is that there are two ways of reading Trendelenburg's use of “objective” and “subjective,” and I think that his texts under-determine which one he endorses. Recall that Trendelenburg twice mentions two elements that constitute whether something is subjective or objective – origin and applicability. However, these are features that could in principle come apart. Thus, similarly to Hans Vaihinger's own analysis of the Neglected Alternative, we will separate the two different features that determine subjectivity and objectivity, while keeping in mind that Trendelenburg holds that the features are linked together.⁴³

Subjective Applicability

A structure is subjective just in case it applies to mind-dependent entities.

42 “Ueber eine Lücke,” 223.

43 See Vaihinger, *Commentar* II, 136-8 where he delineates the *Ursprungsfrage* and *Geltungsfrage*. My consideration of the *Ursprungsfrage* is importantly different from Vaihinger's however, in that I consider the origin of space itself, whereas Vaihinger inquires about the origin of our representation of space.

Objective Applicability

A structure is objective just in case it applies to mind-independent entities.

One clear limitation of this characterization of “subjective” and “objective” is that it describes only the kinds of things that can have an application to something or a validity for a domain, for example: structures, figures, representations, concepts, and intuitions. I use “structure” since it seems like the most general of these terms that does not have an explicitly mentalistic connotation, and it coheres with the examples that Trendelenburg uses to illustrate the terms “subjective” and “objective.”

The other option Trendelenburg gives us is to characterize subjectivity and objectivity in terms of origin:

Origin Subjectivity

A structure is subjective just in case it originates in a finite mind.

Origin Objectivity

A structure is objective just in case it originates outside of a finite mind.

With both these characterizations of “subjective” and “objective” in hand, we can now return to Trendelenburg's reconstruction of Kant's argument in the Aesthetic with which we began this section.

- 1) Space and time are necessary and universal.
- 2) If space and time are necessary and universal, then they are a priori.
- 3) If space and time are a priori, then they are subjective.
- 4) If space and time are subjective, then they are not also objective.
- 5) So, space and time are subjective and not objective.

Our previous discussion can now help us make sense of the last three moves in this argument.

The third proposition on either reading of “subjective” would be accepted by both Trendelenburg and Kant, since they both accept that a priori forms have validity for the realm of the mind-dependent and both accept that our a priori knowledge of space means that space originates in the mind.

Much, then, hinges on the fourth proposition. If we read “subjective” and “objective” in terms of applicability, we should understand this proposition as saying that if space is something that has validity for the mind-dependent, it could not also have validity for anything mind-independent. On the other hand, if we read “subjective” and “objective” in terms of origin, then if space originates in the mind, then it does not also have an origin outside of the mind. On either reading, it is clear that this is the premise where Trendelenburg thinks that Kant unjustifiably neglects an alternative. It should be evident from the previous discussion that at least part of this neglected alternative is the possibility that space is both subjective and applies to things in themselves. Since on either reading of the term “subjective,” both Kant and Trendelenburg agree that space is subjective, Trendelenburg is at a minimum making the following claim, which I will call the “Simple Alternative.”

Simple Alternative

Space is an a priori representation that originates in the human mind and applies to mind-dependent entities (and is thus, subjective), but it also applies to things in themselves (and is thus, objective).⁴⁴

We can add that Trendelenburg holds that space applies to things in themselves in virtue of a correspondence between space and the nature of the things in themselves that is a result of their

⁴⁴ The Simple Alternative is very similar to the views that Vaihinger and Edward Kanterian ascribe to Trendelenburg. See *Commentar* II, 139 and “The Ideality of Space and Time: Trendelenburg Versus Kant, Fischer, and Bird,” *Kantian Review* 18, (2013): 268.

common root in the activity of motion.⁴⁵

Clear support for the Simple Alternative is spread throughout Trendelenburg's corpus. Consider first in the "Ueber eine Lücke" essay where he describes the dual subjectivity and objectivity of space as the fact that space has validity for both thought and the things in themselves.⁴⁶ Elsewhere, Trendelenburg adds to this picture that space specifically has an a priori origin in the mind. For example, later in "Ueber eine Lücke" he says that neither Fischer nor Kant could refute that space and time have "both a subjective origin in cognition and an objective meaning [*Bedeutung*] in reality [*Sein*]."⁴⁷ In the essay "Kuno Fischer und sein Kant," as well, he describes the third alternative as the possibility that space is the "a priori presupposition of all sense perception but at the same time valid for the things."⁴⁸

According to the Simple Alternative, space is something that exists as a representation in our minds but this representation still applies to things in themselves. However, in line with the idea of "origin objectivity" explicated earlier, Trendelenburg sometimes suggests that there is more to the alternative that he has in mind. Specifically, Trendelenburg suggests that space itself literally arises both in the mind and outside of it. In support of this interpretation first note that it would straightforwardly follow from Trendelenburg's assertion that space applies to things in themselves combined with his claim that origin is what conditions validity.⁴⁹ Additionally, Trendelenburg's language is sometimes very suggestive of this possibility. Consider in the *Logische Untersuchungen*, when he says that we call space and time "pure intuitions, *insofar* as they [are] in us, unconditioned by experience, as an underlying condition of experience.

45 Cf. "Ueber eine Lücke," 286.

46 "Ueber eine Lücke," 219.

47 Ibid, 259.

48 "Kuno Fischer und sein Kant," 9; see also *op. cit*, 2.

49 "Ueber eine Lücke," 222 and 223

Subjectively they are pure intuitions without thereby sacrificing reality objectively.”⁵⁰ Thus, it could be that space and time have an existence within our minds, as pure intuitions, but also exist outside of them in reality. This possibility is very strongly suggested in one of his statements of the Neglected Alternative, presented earlier, when he says that in Kant “there nowhere emerges a thought that prevents space and time from being at the same time something outside of human intuition.”⁵¹ Therefore, we may want to interpret Trendelenburg to have in mind a more complex alternative than the Simple Alternative. He may hold the following:

Complex Alternative

Space is an a priori representation that originates in the human mind and applies to mind-dependent entities (and is thus, subjective), but it also has an origin outside of the human mind and applies to things in themselves (and is thus, objective).⁵²

Now that we have developed two possible interpretations of Trendelenburg's alternative, there are two remaining tasks. In the next section we will go back to Kant and assess Trendelenburg's own interpretation of him. Specifically, we will look to see whether Trendelenburg may plausibly point to a gap in Kant's argument. After showing that Trendelenburg's objection at least points to actual features of Kant's thinking, we will return to his alternative and further refine it in the final section.

⁵⁰ *LU*, 223, my emphasis.

⁵¹ *Ibid*, 162.

⁵² Sebastian Gardner at one point interprets Trendelenburg as holding a view like this. See his *Kant and the Critique of Pure Reason* (New York: Routledge, 1999), 71. Kuno Fischer also interprets Trendelenburg in a similar way (see the quotation on p. 96 above). Trendelenburg, however, contests the objections to his philosophy that Fischer develops on the basis of this characterization (“Ueber eine Lücke,” 262-3).

3.4. Trendelenburg's Interpretation of the Aesthetic

Trendelenburg's reconstruction of Kant (stated above) is a fairly crude representation of how Kant actually argues in the Aesthetic. Most problematically, it completely ignores the intuitiveness of the representation of space, and further, Kant cites considerations beyond just the necessity and universality of space to demonstrate that we represent space as an a priori intuition.⁵³ We already know that Kant accepts that space is subjective in Trendelenburg's sense, so the key issue, now, is simply exegetical: does Kant in fact move from the claim that our representation of space is an a priori intuition to the conclusion that space is not objective in one of Trendelenburg's senses of the term?

The key section for investigating this issue is the “Conclusions from the above Concepts.” This is where Kant employs the results of the previous Expositions to make claims about the ontological nature of space itself. We need to look for two claims: that our (original) representation of space (i.e. our a priori intuition of space) could not apply to anything mind-independent and that space could not also arise independently of the human subject. Both of these claims are indeed found in the Conclusions. The denial of the applicability or validity of our representation of space is found towards the beginning of the section:

⁵³ Specifically, Kant uses the facts that space is infinite, that the entirety of space is more fundamental than its parts, and that we can only represent a single space as key premises in his argument for the claim that space is an a priori intuition. In the earlier *Logische Untersuchungen* Trendelenburg does consider Kant's arguments for the intuitive nature of space (*LU*, 156-8 and 162-3) and actually endorses the view that we have an a priori intuition of space (223). Thus, my criticism applies specifically to the reconstruction in the “Ueber eine Lücke” essay.

We can accordingly speak of space, extended beings, and so on, only from the human standpoint. If we depart from the subjective condition under which alone we can acquire outer intuition, namely that through which we may be affected by objects, then the representation of space signifies [*bedeutet*] nothing at all (A26-7/B42-3).

In other words, our representation of space only has significance in the world of objects conditioned by humans and does not apply to anything beyond this world. Kant even more explicitly limits the validity of space to appearances later in the Aesthetic, when he says that appearances “alone are the field of their [space and time] validity, beyond which no further objective use of them takes place” (A39/B56).

We can also find Kant's denial of the possibility that space could arise independently of any humans. In his explanation of “transcendental idealism,” he says that space “is nothing as soon as we leave aside the condition of the possibility of all experience, and take it as something that grounds the things in themselves” (A28/B44). Later in the B edition, Kant goes on to talk about the “absurdity” of a mind-independent space (B70-71) and points out the theological benefits of his denial of mind-independent space (B71-2). Thus, Kant does in fact rule out the possibility of an objective space on both of Trendelenburg's senses of “objective.” Since he rules out these possibilities, he rules out the alternative views of space that I have attributed to Trendelenburg.

This is not to say, however, that Kant *neglects* these alternatives. It may be that what Kant presents earlier in the Aesthetic justifies his ruling out the alternatives. I will argue that this is indeed the case in the next chapter. The last task for this chapter is to explore Trendelenburg's alternative view of space in more detail, so we can be ready to accurately judge whether Kant is aware of it and whether he is able to successfully argue against it.

3.5. The Origin and Applicability of Space

One worry in the previous discussion is whether Trendelenburg's alternative, particularly in its complex form, is coherent. Does it even make sense to say that space comes to exist both in the mind and in mind-independent reality? I think the possibility is at least coherent, but to show this, we must look a bit more closely at the way that Trendelenburg describes his view.

The best place to start is with Trendelenburg's response to one of Fischer's objections mentioned earlier. Fischer objects that Trendelenburg's view really amounts to saying that there is one space, the objective space, and then a mere copy of this space, the subjective space, in our minds. Though Fischer understands Trendelenburg to be *claiming* that there are two instances of space, Fischer argues that the view ultimately collapses into a view on which there is just a single space. Trendelenburg directly responds to this objection in "Ueber eine Lücke." Here, he protests Fischer's description of space as an *Abbild* or *Nachbild* (copy or after-image) and insists that he is describing subjective space as a *Gegenbild* (a counter-image or mirror image). Trendelenburg tries to explain his use of "*Gegenbild*" by employing the analogy of the strophe and antistrophe in a Greek chorus.⁵⁴ The strophe and antistrophe are successive parts of the chorus's chant that have the same meter but involve the chorus moving in opposite directions. Though Trendelenburg does not elaborate on the analogy, the idea seems to be that the space in the mind and the space in reality are in some sense equal structures, where neither is a mere copy of the

⁵⁴ "Ueber eine Lücke," 268; cf. 221 and *LU* 322.

other. They share structural properties, but the possibility is left open, and is suggested by the analogy, that they develop in different ways.

This forces us to figure out exactly in what ways the subjective space and objective space are supposed to be similar and different. Trendelenburg suggests that there is not an exact point-to-point correspondence between the spaces, so what kind of correspondence is there?⁵⁵ One claim that is made in the *Logische Untersuchungen* is that corresponding laws govern the space of the mind and the space of the outer world.⁵⁶ The difference, though, is that the laws of the mind are known *a priori*, whereas the corresponding laws of the outer world can only be known through experience. This is an aspect of Trendelenburg's goal of uniting the *a priori* and *a posteriori*.⁵⁷ The explanation for the corresponding laws of both spaces is that they are both produced by the same force: motion. Trendelenburg also characterizes the infinite nature of both structures in the same way. The infinite nature of space is to be understood in terms of the unconstrained activity of motion.⁵⁸ He emphatically states that space is not a complete or given form, as he maintains Kant argued, but rather that we should understand the infinitude of space in terms of its unlimited potential growth and development.

In addition, we can infer more specifically what kinds of laws some of these corresponding laws must be. In his criticism of Kant's view of space, he argues that Kant does

55 Trendelenburg enumerates the ways that motion exists in nature and then says, “the same motion belongs to thought, though not in the same manner where the point in the motion of thought covers [*deckt*] the corresponding point of motion in nature externally. Nevertheless, there must be a counter-image [*Gegenbild*] of the same motion, because how would motion otherwise come up to consciousness?” (*LU*, 142). Hence, Vaihinger's claim that Trendelenburg holds that the *a priori* representation of space completely corresponds to objective reality is inaccurate (*Commentar II*, 146).

56 *LU*, 322-3.

57 See, for example, his claim that the *a priori* must be demonstrable in the *a posteriori* (*LU*, 235).

58 *LU*, 167-8.

not provide a sufficient ground for geometry because the subject matter of geometry, the structure of space, lies solely in the subject.⁵⁹ Trendelenburg accepts that mathematical knowledge comes from a priori construction, so if we are to remedy the defect he sees in Kant's view of geometry, it must be the case that the geometrical constructions we create in a priori intuitions correspond to geometrical features of mind-independent space. In other words, the structure of mind-independent space must confirm the constructions we create a priori, and in the seventh chapter of the *Logische Untersuchungen*, Trendelenburg outlines how this in fact occurs.⁶⁰ Trendelenburg then briefly discusses examples from the physical sciences, like astronomy and optics, whose own laws concerning mind-independent objects are grounded in the subjectively and objectively valid laws of mathematics, which in turn trace back to the nature of motion. Therefore, insofar as we discover mathematical physical laws through a priori intuition, the laws must correspond to mind-independent reality.

Thus, we have very quickly canvassed a few important ways in which the spatial structures in our minds and in reality correspond: in their laws, in their infinite nature, and in their mathematical structures.⁶¹ But we must now look more closely at how to describe

⁵⁹ Ibid, 160. For more discussion of this objection, see the Appendix below.

⁶⁰ *LU*, 289-93.

⁶¹ I should note that the picture of space developed in this chapter is focused on a narrow section of Trendelenburg's philosophy. As I have stated earlier, what undergirds Trendelenburg's view of space is that there exists a fundamental force, motion, that generates space in both the mind and in mind-independent reality. However, Trendelenburg ultimately holds that motion acts not just as an efficient cause but as an Aristotelian final cause. Though this point is primarily developed in the second volume of *LU*, Trendelenburg is direct about it in the preface to the first volume, when he says that the fundamental principle of philosophy is found in the "organic weltanschauung" of Plato and Aristotle (ix). Since space is a product of purposive motion, space too is essentially purposive, and the laws that govern the space of appearances and the space of the mind-independent world are both expressions of the same teleological laws of motion. Though these issues express underlying points of contention between Trendelenburg and Kant over the nature of teleology, I think they can be safely set aside in the context of the Neglected Alternative debate, as Trendelenburg himself completely sets them

Trendelenburg's view of space. Following Fischer, we might describe Trendelenburg as holding that there are two “exemplars” of space, and Trendelenburg describes his own view as positing the existence of two spatial structures that mirror each other. In trying to describe Trendelenburg's alternative, we could say that space has two instances or instantiations. There are important implications of these ways of describing space that we must now draw out.

At least in his complex formulation of the Neglected Alternative, Trendelenburg views space as the kind of thing that can have multiple instances or instantiations: space comes to be exemplified both in the mind and in absolutely mind-independent reality. To put this in Kantian terms, Trendelenburg views “space” as denoting a concept. “Space” does not directly refer to some particular structure but rather describes a structure that can be instantiated indefinitely, like the concepts denoted by “rectangle” or “house.” Thus the space that we access through a priori intuition and the mind-independent space have the property of being space in virtue of having the qualities specified by the concept of space.⁶²

There is an obvious tension between this understanding of space and Trendelenburg's affirmation of the Kantian view that space is an a priori intuition. To say that space is an a priori intuition is to hold that space is a *particular* structure that we can know prior to experience, and further, space is this particular structure in virtue of our representation of it directly referring to it; the structure is not space in virtue of having certain properties or satisfying a description. How can Trendelenburg endorse this Kantian view of space and at the same time treat space like it is a concept? It should come as little surprise that the opposition between concept and intuition is

aside in his criticisms of Kant's view of space and in his own thorough treatment of space in the first volume of *LU*. For Trendelenburg's teleology, see especially chp. IX-XI of the second volume of *LU* and Beiser, *Late German Idealism*, 46-54.

⁶² Cf. Hermann Cohen, *Kants Theorie der Erfahrung* (Berlin: Ferd. Dümmler's, 1871), 72. As he puts it, Trendelenburg holds that spatiality is more fundamental than space.

another dualism that Trendelenburg thinks his philosophical system of motion can overcome.⁶³ In this particular case, Trendelenburg can say that the specific structure referred to by our a priori intuition of space has the property of being space in virtue of it satisfying the requirements of the concept of space. But in addition, we have a special sort of epistemic access, pure intuition, to this particular instantiation of space. Another way to describe the situation is to say that we construct space a priori in our minds, but what we construct has the property of being space, because our construction satisfies the criteria specified by the concept of space. This is consistent with the existence of other structures, perhaps completely mind-independent structures, also satisfying the criteria specified by the concept of space and thus also being space. Therefore, at a first glance, Trendelenburg can accommodate Kant's fundamental claim about our knowledge of space.

3.6. Conclusion

The previous discussion gives us an understanding of Trendelenburg's Neglected Alternative objection against Kant's argument in the Transcendental Aesthetic. Going forward, there are two essential points of contention between Trendelenburg and Kant:

- 1) Can our representation of space, an a priori intuition, have validity for absolutely mind-independent reality? Kant denies that it can and Trendelenburg argues that Kant is unjustified in his denial.

⁶³ *LU*, 314-5.

- 2) In addition to the space that orders appearances, can there exist another space, or another instantiation of space, that exists completely independently of us? Again, Kant denies such a possibility and Trendelenburg argues that this denial is unjustified.

We will answer these questions in the next chapter, when we present a comprehensive resolution to the Neglected Alternative objection.

Appendix: Trendelenburg on Necessity

The main topic in this chapter is Trendelenburg's claim that Kant fails to establish the truth of transcendental idealism. However, it is also worth considering his motivation for arguing against transcendental idealism in the first place. As mentioned in passing above, Trendelenburg's primary argument against transcendental idealism itself is that transcendental idealism does not do justice to the necessity and certainty of the sciences. This of course would be news to Kant and Fischer, who argue that transcendental idealism must be true, if we are to provide a necessary and certain foundation for the sciences. In light of their disagreements on this point, it is tempting to hold that Kant/Fischer and Trendelenburg just have different views of necessity and certainty and develop differing philosophical systems, accordingly. However, there is an interesting passage in which Trendelenburg gives a direct argument against the ability of Kant's philosophy of geometry to account for the necessity of geometry. Similar arguments were later made independently by Russell and Moore in the twentieth century.⁶⁴

⁶⁴ See Bertrand Russell, *The Problems of Philosophy* (London: Oxford University Press, 1912),

Trendelenburg presents the argument in the middle of various complaints about the Kantian view of space in the section on space and time in the *Logische Untersuchungen*. He begins by pointing out that Kant's view of geometry makes it impossible to apply geometry to things in themselves, which Trendelenburg views as a skeptical consequence.⁶⁵ Of course, Kant would vigorously agree that geometry cannot apply to things in themselves while equally vigorously denying that this should be viewed as skepticism of any sort. However, Trendelenburg motivates viewing the Kantian account of geometry as skeptical by pointing to a variety of disconcerting possibilities consistent with Kant's view of space.

The Kantian view has been credited for grasping the necessity of geometry that arises from the pure form of intuition as an a priori science. If the certainty of geometry rests on this backing, then it depends on the subject; and if one accepts space as a given form, then this contingently given thing [*zufällige Gabe*] can at some point alter; and nothing contradicts the possibility that other intuiters have other forms; perhaps a space with two or four dimensions is that most beloved to the gods.⁶⁶

Immediately after these points, Trendelenburg asserts that the Kantian philosophy makes mathematics and physics subjective, because they become “nothing but fantasies of our particular intuition.”⁶⁷

There are hints of at least two objections in this passage from Trendelenburg. The first objection is that Kant's conception of space is consistent with the possibility of other beings having other forms of intuition, including more sophisticated beings perceiving outer objects in

chapter VIII and G.E. Moore. *Some Main Problems of Philosophy* (New York: Macmillan, 1953), 154. The objections from Russell and Moore (though not Trendelenburg) are discussed in James Van Cleve, *Problems from Kant* (New York: Oxford University Press, 1999), 37-43. Falkenstein independently considers this objection in his *Kant's Intuitionism*, 267-8.

⁶⁵ *LU*, 160; cf. Ueber eine Lücke, 217.

⁶⁶ *LU*, 160.

⁶⁷ *Ibid.*

radically different spaces. This sort of relativism about space undermines the necessity and universality of geometry, which becomes just the science of our *particular* kind of space. However, this objection is one to which I think Kant has plausible responses readily available. Kant admits the possibility of other beings with non-spatiotemporal forms of intuition but denies that this in any way poses a problem for his philosophy.⁶⁸ The laws of geometry are laws that concern our form of intuition and are necessary for all human cognizers. In other beings, there may be other forms of intuition and even other forms that order outer objects, but this does not undermine the universality and necessity of geometry. Geometry is universal in that it describes the form in which all humans must experience outer objects. It provides necessary truths because it describes a structure that is an a priori and necessary condition for human experience.

The second suggestion of an objection comes from Trendelenburg's claim that on the Kantian view, space depends on the subject, and therefore space is a "contingently given thing" that "can at some point alter." The objection seems to be that by grounding geometrical truths in the human subject, which is something contingent, the necessity of geometrical truths is undermined. There is no guarantee that our constitution could never alter in such a way that we no longer intuit objects in a space with a Euclidean structure; perhaps we could start intuiting

⁶⁸ He raises this possibility in the Aesthetic when he says that "we cannot judge at all whether the intuitions of other thinking beings are bound to the same conditions that limit our intuition and that are universally valid for us" (A27/B43). He returns to this topic towards the end of the B Aesthetic: "It is also not necessary for us to limit the kind of intuition in space and time to the sensibility of human beings; it may well be that all finite thinking beings must necessarily agree with human beings in this regard (*though we cannot decide this*), yet even given such universal validity this kind of intuition would not cease to be sensibility" (B72, my emphasis). In addition to finite beings, there is the infinite being, God, who certainly does not intuit objects in space and time. Kant was already open to the possibility of different kinds of spaces in his first published work, *Thoughts on the True Estimation of Living Forces*. There Kant says that if there are other worlds, these other worlds must have a kind of space that differs from the space of our world (Ak. 1:25).

outer objects in a two or four dimensional space, or a non-Euclidean space. If this were to occur, then at least some propositions of Euclidean geometry would be false.⁶⁹ Thus, Kant's account of the source of geometry undermines the necessity of geometry.

When it comes to responding to this objection, Kant has tied his own hands. In reply, he can point out that he has demonstrated that space is an a priori condition for our experience, but he has not demonstrated that it is impossible for a form of intuition (specifically, space) to change or be replaced with another form of intuition. Granted, this change would result in a different kind of experience, but Kant also cannot eliminate the possibility of no longer having the kind of experience in which our form of intuition, space, is essential and instead having a kind in which a different form of intuition is essential. Kant cannot eliminate such a possibility, because for him, claims about the ultimate nature of the subject are off-limits, i.e. he cannot make claims about what the subject in itself must be like. Our limitations in knowing ourselves are stated nicely in this passage from the Amphiboly.

Those transcendental questions, however, that go beyond nature, we will never be able to answer, even if all of nature is revealed to us, since it is never given to us to observe our own mind with any other intuition than that of our inner sense. *For in that lies the mystery of the origin of our sensibility. Its relation to an object, and what might be the transcendental ground of this unity, undoubtedly lie too deeply hidden for us, who know even ourselves only through inner sense, thus as appearance*, to be able to use such an unsuitable tool of investigation to find out anything except always more appearances, even though we would gladly investigate their non-sensible cause (A278/B334, my emphasis).

69 That space has a Euclidean structure in particular is not essential to this discussion. What is essential is that geometry is about the structure of space (whatever it may be) and these truths about space are necessary. Kant holds that space has a Euclidean structure, and this is not a point of contention between Kant and Trendelenburg. Thus, I will specifically talk about Euclidean geometry when I need to clarify that I am talking about the laws that govern the actual space grounded in our a priori intuition.

Kant acknowledges that the nature of our sensibility has a cause in the world of things in themselves, but we cannot know anything about it, much less its modal properties. Thus, there is no way of ruling out that we, as the transcendently real subjects who underlie our forms of intuition, could someday alter our forms of intuition in a way that falsifies Euclidean geometry.

In this discussion we must pay careful attention to our use of modal terms. On one interpretation of “it is impossible to have an alternative form of intuition,” this statement comes out true according to Kant’s Critical philosophy. This is because Kant often uses “possible” to mean “consistent with our actual forms of experience (i.e. space, time, and the categories).” This is the sense in play, when Kant talks about “possible experience.” But there is another sense of possibility that Kant also acknowledges on which “it is impossible to have an alternative form of intuition” is not a claim that we can know to be true. If “possible” means “consistent with the powers of things in themselves,” then this claim is unknowable; whether we, as things in themselves, could have alternative forms of intuitions is beyond what we can know.⁷⁰ That this is not something we can know is the problematic conclusion pointed to by Trendelenburg’s objection. The subject as a thing in itself is what ultimately supports our knowledge of geometry, and our inability to guarantee that the subject will not in some way alter its forms of intuitions undermines this knowledge.

I think Trendelenburg has identified a significant problem for Kant's grounding of necessity. One possible response would be for Kant to deny the coherence of the objection. The

⁷⁰ For these different senses of “possible” I am indebted to Nicholas Stang’s “Did Kant Conflate the Necessary and A Priori?”, *Nous* 45, no. 3 (2011): 443-471. We can plausibly distinguish additional senses of “possible” for Kant. Stang also discusses “empirical possibility,” which is consistency with “actual events and natural laws” (446). Further, the content of a judgment has the modal status of possible, if it synthesized with the category of possibility. These additional senses are not of importance in Trendelenburg's objection.

objection talks about our forms of intuition *changing*, but alterations and change are terms that only have significance within the realm of experience. Support for this retort comes from the claim that alterations are only possible within time, combined with the fact that Kant denies that time pertains to things in themselves. This reply has some plausibility, but it faces a number of problems. First, it is unclear how Kant could know that things in themselves are unable to alter; even if time is completely mind-dependent, there could be something like time that pertains to things in themselves that allows for alterations. In addition, Kant is certainly committed to moral agents existing as things in themselves and is perhaps committed to things in themselves affecting the subject; it is difficult to explain these facts, without accepting the possibility of some sort of change or alteration in things in themselves.

More promising for Kant is to attack the alternative. In the fifth chapter, we will review arguments that Kant gives against the existence of a transcendentally real space that could ground the necessity of geometry or physics. But further, it might be that *any* explanation of the source of necessity faces an objection analogous to the one Trendelenburg gives to Kant.⁷¹ Simon Blackburn presents a dilemma for any view that tries to explain the ground of necessary truths.⁷² To summarize, Blackburn begins with the claim that the ground must be either not necessary or necessary. If it is not necessary, then the necessity of what it grounds is undermined, because the necessity of this thing is grounded in something that just happens to be the case. On the other hand, if the ground is necessary, then we have failed to explain necessity, because we must now explain why this ground is necessary. Either way, we have failed to explain necessity. If

71 This is Van Cleve's view. See his *Problems from Kant*, 41-3. Here, he also appeals to Blackburn's dilemma.

72 Simon Blackburn, "Morals and Modals," in *Metaphysics: An Anthology*, ed. Jaegwon Kim and Ernest Sosa (Oxford: Blackwell, 1999), 635.

Blackburn is right, then Kant's claim that necessity is grounded in the subject fails but only because any possible grounding of necessity is unsatisfactory. Blackburn's dilemma is controversial, but it gives us reason to think that the problem with Kant's explanation of necessity is one that may be common to alternative explanations as well.⁷³ Consider Trendelenburg's own grounding of necessity in motion. Trendelenburg views motion as a necessary primary force, but what can explain why motion is necessary? If motion explains necessity, we must then appeal to motion, and this would mean that motion must be in some way self-explanatory. Though this would seem strange, Trendelenburg views motion as something like a first principle, so he may find it acceptable in the end. In any case, my purpose in this section has been to explain why Trendelenburg finds Kant's transcendental idealism unacceptable, and his concerns with the nature of necessity constitute an important motivating force, whether or not Trendelenburg himself provides a plausible alternative.

⁷³ For critical discussion of Blackburn's dilemma, see, among others, Ross Cameron. "On the Source of Necessity," in *Modality: Metaphysics, Logic, and Epistemology*, ed. Robert Hale and Aviv Hoffman (New York: Oxford University Press, 2010), 137-152; Robert Hale "The Source of Necessity," *Philosophical Perspectives* 16, (2002): 299-319; and Peter Hanks. "A Dilemma about Necessity," *Erkenntnis* 68, no. 1 (2007): 129-48.

Chapter Four

Resolving the Neglected Alternative

Recall from the first chapter that the Neglected Alternative targets the following argument in the Transcendental Aesthetic:

The Argument for the Exclusive Mind-Dependence of Space

- 1) Our representation of space is an a priori intuition [from the Expositions].
- 2) We cannot have a priori intuitions of anything mind-independent [entailed by the “Conclusions”].
- 3) So, we intuit a mind-dependent space [from 1) and 2)].
- 4) If 1), 2), and 3), then space is not mind-independent.
- 5) So, space is not mind-independent.
- 6) Then, space is exclusively mind-dependent [from 5)].

Specifically, the Neglected Alternative challenges the intermediate steps of the argument by maintaining that there is no valid route for Kant to travel from the first premise to the conclusion (6). Both Pistorius and Trendelenburg present versions of the Neglected Alternative that target the second premise. Pistorius suggests that our a priori intuition of space represents non-spatial things in themselves, through a pre-established harmony (his “Leibnizian Neglected Alternative”), and Trendelenburg argues that our a priori intuition of space could have validity for things in themselves, in both of his formulations of the Neglected Alternative. In addition, Pistorius's empiricistic formulation of the Neglected Alternative and part of Trendelenburg's complex formulation of the Neglected Alternative target Kant's inference in the fourth premise. It is now time to assess whether these objections succeed.

In the first section I consider the second premise and argue that this premise follows from Kant's conception of intuition in the Aesthetic and that Kant presents an independent argument for this view of intuition elsewhere in the *Critique*. This discussion alone will suffice to show that Pistorius's Leibnizian version of the Neglected Alternative and both of Trendelenburg's versions of the Neglected Alternative are unsuccessful. The second section is devoted exclusively to answering Pistorius's empiricist version of the Neglected Alternative. This involves giving a partial defense of the fourth step and an explanation of the origin of spatial properties; as I will argue, Kant holds that there is more than just a priori intuition in the determination of the spatial properties of objects, but nothing mind-independent contributes to the existence of these properties. In the third section, I further defend the fourth premise by considering and rejecting hypotheses that purport to provide a counter-example in which space is in some way both mind-dependent and mind-independent. In the fourth section, I briefly review and synthesize the arguments in the first three sections to provide a more direct defense against the Neglected Alternative and an explanation for how Kant's Argument for the Exclusive Mind-Dependence of Space is successful. Finally, in the fifth section, I evaluate previous purported solutions to the Neglected Alternative and argue that my own solution should be preferred.

To foreshadow, I will briefly mention an element of my solution that is anticipated by Hermann Cohen's own take on the Neglected Alternative. In response to Trendelenburg, Cohen says that “One can claim [*fordern*] that the subjective form [space] corresponds to an objective material in actuality [*Wirklichkeit*]. But that the subjective form should be at the same time an objective form can only be understood metaphorically.”¹ My solution holds that Kant succeeds in

1 *Kants Theorie der Erfahrung*, 66-7. For more on Cohen's response to the Neglected Alternative, see my Introduction, 14ff and p. 169 later in this chapter.

showing that our form of appearances, space, is completely mind-dependent. This point does not eliminate the possibility that in mind-independent reality there is something that in a way corresponds to space.² However, as I will argue, this possibility is entirely irrelevant to Kant's Argument for the Exclusive Mind-Dependence of Space.

4.1. Premise Two: A Priori Intuitions and the Mind-Independent

Kant provides no explicit argument for the premise that we cannot have a priori intuitions of the mind-independent. This is unfortunate as this premise would not have been at all obvious to Kant's contemporaries, and it is still not obvious today. Consider first, the important rationalist predecessors of Kant like Wolff and Crusius, who argue that our a priori representations can give us knowledge of mind-independent reality.³ Wolff, for example, argues that the principle of sufficient reason has a universal application to all objects and that this principle is derivable from the law of non-contradiction. This means that the completely logical and a priori law of non-contradiction gives us substantive knowledge of the features of mind-independent objects. In contemporary philosophy, many endorse what seem to be very much like a priori intuitions of mind-independent objects. Some philosophers accept what is called “ethical intuitionism,”

2 My invocation of Cohen is admittedly problematic here: Cohen eliminates the thing in itself, so despite the above quotation, he would not ultimately accept the possibility of anything corresponding to space existing in mind-independent reality.

3 For discussion of this point, see Desmond Hogan, “Three Kinds of Rationalism and the Non-Spatiality of Things in Themselves,” *Journal of the History of Philosophy* 47, no. 3 (2009): 359-64.

according to which we have unmediated knowledge of completely human-independent moral facts.⁴ In the philosophy of mathematics, a common view is that when we think about mathematical objects, our thoughts directly refer to non-natural, completely mind-independent mathematical entities.⁵

Finally, and most directly connected to our discussion so far, Trendelenburg himself challenges the premise that we cannot have a priori intuitions of the mind-independent. In a passage in the “Ueber eine Lücke” essay, Trendelenburg explicitly considers and then unceremoniously rejects everything that Kant writes in the first paragraph of the Conclusions from the above Concepts. Specifically, he focuses on Kant's claim that “neither absolute nor relative determinations can be intuited prior to the existence of the things to which they pertain, thus be intuited a priori” (A26/B42). Trendelenburg begins by endorsing the principle that determinations [*Bestimmungen*] that pertain to the being of individual things are cognizable prior to the existence of these things, and he uses the example that we can know that iron is a determination of a sword prior to cognizing the existence of a sword.⁶ Trendelenburg then immediately concludes, “thus there is nothing to prevent space and time as such conditions [*Bedingungen*] prior to the existence of things...from being intuitable a priori.”⁷ Kant's premise that such a priori intuitions are impossible is simply an expression of his excessive empiricistic tendencies.⁸

4 For a recent argument for ethical intuitionism, see Michael Huemer, *Ethical Intuitionism* (New York: Macmillan, 2005), especially p. 99-127.

5 Kurt Gödel is perhaps the most famous advocate of this view in the 20th century. See Stewart Shapiro, *Thinking about Mathematics* (New York: Oxford University Press, 2000), 201-11.

6 “Ueber eine Lücke,” 229-30. See Grapengiesser, *Kants Lehre von Raum und Zeit*, 24-5 for an incredulous line by line discussion of this passage from Trendelenburg. Cf. Cohen, *Kants Theorie der Erfahrung*, 77-8.

7 “Ueber eine Lücke,” 230.

8 Ibid, 229.

Thus, there are two important questions about Kant's conception of a priori intuition that we must answer. First, we must understand what Kant means by “a priori intuition” well enough to determine whether it in fact follows that we cannot have a priori intuitions of the mind-independent. So, we must ascertain whether Kant presents anything to rule out the versions of the Neglected Alternative from Trendelenburg and Pistorius discussed above. But secondly, we must also discern whether Kant provides a compelling *argument* for the conception of a priori intuition that he provides. Since it is clear that many have held and many still do hold a conception of a priori intuition that allows for the intuition of the mind-independent, it would only be a partial conciliation, if Kant is able to rule out the Neglected Alternative by using an arbitrary or implausible philosophical framework, if equally acceptable or better alternative frameworks exist.

In the first chapter, I argued for a particular interpretation of Kant's use of “a priori intuition.”⁹ On this interpretation, a priori intuitions make their objects possible or provide a ground for their objects. If my interpretation is correct, it is clear why Kant would be comfortable asserting that we cannot have a priori intuitions of anything mind-independent: an a priori intuition is a mind-dependent representation, and since it makes possible the object to which it refers, nothing to which an a priori intuition refers can be mind-independent. I submit that this is the best interpretation of Kant's use of “a priori intuition,” but I will go further and argue that *any* plausible interpretation of Kant's use of this term would entail the claim that we cannot have a priori intuitions of the mind-independent.

Though the question of how a priori intuitions refer to an object is not one frequently considered by Kant commentators, one philosopher who has also recently addressed this issue is

9 See section 1.3.

Lucy Allais.¹⁰ She emphasizes the immediacy of intuitions and thus interprets Kant as holding that “intuitions are representations which essentially involve the presence to consciousness of the objects they present.”¹¹ In the case of a priori intuitions, the only way for a particular object to be present to consciousness independently of experience is if the object is mind-dependent.¹²

Accordingly, the only way for a mind-independent object *itself* (and not merely an image or representation of a mind-independent object) to become an object of conscious awareness is through interaction with the object (i.e. through experience). Allais's characterization of intuition focuses on their immediacy, but recall that there are two other features that Kant sometimes attributes to intuitions: they are caused by their objects, and they are singular. The role of causation in intuitions has been discussed already in the first chapter. There, I argued that in a priori intuitions, the relationship between representation and object is inverted, and a priori intuitions, in a sense, cause their objects to exist. However, suppose that I am wrong and a priori intuitions function like empirical intuitions and thus refer to whatever objects cause them. In this case, the only way we could make sense of the relevant affection or causation occurring prior to experience would be if the mind affects itself. This option, too, would eliminate the possibility of a priori intuitions referring to anything mind-independent.

The only hope for arguing that a priori intuitions could refer to the mind-independent is to focus exclusively on the characterization of intuitions as singular representations. If the only restriction on a priori intuitions is that they must refer to exactly one object, then we do not have

10 “Kant's Argument for Transcendental Idealism in the Transcendental Aesthetic,” *Proceedings of the Aristotelian Society* CX, part 1 (2010): 47-75.

11 Ibid, 57.

12 Ibid, 63. I would go one step further and hold that the a priori intuition *makes possible* the mind-dependent object that is presented to consciousness. However, I find Allais's characterization of “presence to consciousness” as being like Russellian knowledge by acquaintance to conflict with Kant's views about the blindness of intuition (op. cit., 60).

any reason to restrict the domain of reference for a priori intuitions. However, it would be grossly inaccurate to interpret Kant's use of "intuition" as solely denoting singularity, at least in the Aesthetic; Kant does not explicitly describe intuitions as singular in the Aesthetic. However, immediacy *is* clearly viewed as a defining feature, and as Allais correctly argues, the immediacy of intuitions restricts a priori intuitions from referring to mind-independent objects. Thus, any plausible description of the characteristics of intuition should describe intuitions as immediate, which supports Kant's premise that we cannot have a priori intuitions of the mind-independent.

Still, a more difficult challenge awaits the premise that we cannot intuit the mind-independent a priori. One might object that the above claims about the nature of intuitions are just assumptions, unargued for by Kant. In reply, we can point out that even if this is the case, it would show that the fact that a priori intuitions cannot relate to mind-independent objects is a consequence of Kant's Critical epistemic framework and not an ad hoc assertion used to demonstrate the exclusive mind-dependence of space. Thus, we could at least mount a strong *internal* defense of the second premise of the above Argument for the Exclusive Mind-Dependence of Space.

However, I think Kant provides at least one completely self-standing argument against holding that we have a priori intuitions of mind-independent objects. To see the outline of the argument, consider our representation of space. If this representation were to be an a priori intuition of a mind-independent space, it would have to be in virtue of something like a pre-established agreement between the two, which would cast doubt upon our knowledge of space. This kind of argument is strongly suggested in a related argument that appears in slightly different forms in both editions of the *Critique* and in the *Prolegomena*. It is most developed in

the B edition of the *Critique*, and I quote the argument at length in a few parts, which appear at the end of the Transcendental Deduction under the heading “Result of this deduction of the concepts of the understanding.”¹³

We cannot think any object except through categories; we cannot cognize any object that is thought except through intuitions that correspond to those concepts. Now all our intuitions are sensible, and this cognition, so far as its object is given, is empirical. Empirical cognition, however, is experience. Consequently no a priori cognition is possible for us except of objects of possible experience.

But this cognition, which is limited merely to objects of experience, is not on that account all borrowed from experience; rather with regard to the pure intuitions as well as the pure concepts of the understanding, there are elements of cognition that are to be encountered in us a priori. Now there are only two ways in which a necessary agreement of experience with the concepts of its objects can be thought: either the experience makes these concepts possible or these concepts make the experience possible. The first is not the case with the categories (nor with pure sensible intuition); for they are a priori concepts, hence independent of experience...Consequently only the second way remains...namely that the categories contain the grounds of the possibility of all experience in general from the side of the understanding...(B165-7).

The crucial topic in these paragraphs is the relationship between concepts and objects. Either concepts make possible the objects to which they apply, or the objects make possible the concepts that apply to them. Kant asserts that he has shown that in the case of the categories and space and time, which are the a priori elements of our cognition, these representations make their objects possible. In other words, the categories make possible the objects to which they refer, and a priori intuitions of space and time make possible the structures in which objects appear, and thereby make appearances possible. However, Kant immediately goes on to consider whether a third relationship between concepts and objects is possible.

¹³ For a thorough discussion of this argument and the various places it appears in Kant's corpus, see John Callanan, “Kant on Nativism, Scepticism and Necessity,” *Kantian Review* 18, no. 1 (2013): 1-27.

If someone wanted to propose a middle way between the only two, already named ways, namely, that the categories were neither self-thought a priori first principles of our cognition nor drawn from experience, but were rather subjective dispositions for thinking, implanted in us along with our existence by our author in such a way that their use would agree exactly with the laws of nature along which experience runs (a kind of preformation-system of pure reason)...(B167)

The proposed alternative is that the categories (and space and time) are “implanted” in us by God, and for this reason our experience conforms to them. Furthermore, God ensures that our use of the implanted categories exactly corresponds to the the laws that govern reality. But here are the problems with this view:

...then (besides the fact that on such a hypothesis no end can be seen to how far one might drive [*treiben*] the presupposition of predetermined predispositions for future judgments) this would be decisive against the supposed middle way: that in such a case the categories would lack the necessity that is essential to their concept. For, e.g., the concept of cause, which asserts the necessity of a consequent under a presupposed condition, would be false if it rested only on a subjective necessity, arbitrarily implanted in us, of combining certain empirical representations according to such a rule of relation. I would not be able to say that the effect is combined with the cause in the object (i.e., necessarily), but only that I am so constituted that I cannot think of this representation otherwise than as so connected; which is precisely what the skeptic wishes most, for then all of our insight through the suppose objective validity of our judgments is nothing but sheer illusion, and there would be no shortage of people who would not concede this subjective necessity (which must be felt) on their own; at least one would not be able to quarrel with anyone about that which depends on the way in which his subject is organized (B167-8).

This passage is especially challenging since Kant raises multiple issues and has multiple targets in mind. For our purposes the main concern is with Kant's claim that the proposed hypothesis would afford us an insufficient kind of necessity called “subjective necessity.” As Kant explains elsewhere, subjective necessity is the only kind of necessity we could have if Hume were correct, and it involves something like unbreakable psychological compulsion to believe that something

is the case.¹⁴ Even though on this hypothesis my judgments about (e.g.) causation would mirror the laws of nature, due to a God-created correspondence, the sort of necessity found in my judgments about causation would be only subjective necessity, and Kant thinks his system affords us a better kind of necessity, objective necessity.

An example of objective necessity from Kant's system is the way that the categories provide essential conditions for the existence of human experience. This furnishes a more secure kind of necessity, because the categories make their objects possible, rather than having to conform to objects that exist independently of us.¹⁵ Still, Kant's complaints in the above paragraph may sound somewhat peculiar, since the hypothesis he rejects for only providing subjective necessity seems epistemically secure. After all, God ensures that the laws that govern our minds correspond to the laws that govern mind-independent nature. However, Kant argues in the *Prolegomena* that the problem is that we could never know that such a pre-formation system has been set up:

Crusius alone knew of a middle way: namely that a spirit who can neither err nor deceive originally implanted these natural laws in us. But, since false principles are often mixed in as well – of which this man's system itself provides not a few examples – then, with the lack of sure criteria for distinguishing an authentic origin from a spurious one, the use of such a principle looks very precarious, since one can never know for sure what the spirit of truth or the father of lies may have put into us (Ak. 4:319n).

In short, the proposed system gives us no way of distinguishing between laws that accurately correspond and laws that do not; in both cases, we feel compelled to believe the laws hold, and

¹⁴ For discussion of the terms “subjective necessity” and “objective necessity,” see Kant's *Metaphysical Foundations of Natural Science* (Ak 4:476n) and a 1789 letter to Reinhold (Ak. 11:41).

¹⁵ See A128-9.

we are unable to verify whether the laws actually exist in mind-independent nature. Note that it would not do to argue that experience can teach us which laws exist in nature, since by definition laws hold necessarily and experience, as Hume taught, cannot give us knowledge of necessities. This problem arises in an even stronger form for views that hold that our categories correspond to reality without a divine guarantor. For example, if one holds that such a correspondence exists and for justification points to evolutionary pressure to accurately represent reality, Kant would make the same objection: we would still have no way of knowing if a particular law was accurate or inaccurate.

It is clear in the passages where Kant discusses this line of argument that it holds not only for the categories but for the principles of sensibility constituted by the a priori intuitions of space and time. So, we are now in a position to apply the arguments above to the case of a priori intuition, and we are able to construct an argument for the claim that a priori intuitions should only take mind-dependent objects. Consider specifically the case of our a priori intuition of space, and suppose that this were an intuition of a mind-independent space. One essential function of our a priori intuition of space is to allow for us to have synthetic a priori knowledge of geometrical laws. On Kant's system, geometrical laws are certain and necessary, in virtue of the fact that the nature of space is ultimately grounded in ourselves. The necessity and certainty of geometry would be undermined, if our a priori intuition referred to a mind-independent space, because we would have no way of verifying that our a priori intuition tracked genuine geometrical laws, rather than it just being the case that we are psychologically compelled to believe in these laws. In general, the purpose of a priori intuitions is to provide us with knowledge of synthetic a priori laws, and this cannot happen if a priori intuitions refer to mind-

independent objects.¹⁶

It is important to understand the dialectical role of this argument. The argument concerns the best way to construe the relationship between a priori intuitions and the objects to which a priori intuitions refer. Specifically, it purports to show that the best way to account for the certain and necessary synthetic a priori laws of geometry (or any other science) is with a system like Kant's, in which our a priori intuitions of geometrical objects refer to completely mind-dependent objects. The argument is in no way question-begging, as it does not depend on the specific features that Kant claims are had by a priori intuition in the Aesthetic, and most importantly, it does not depend on the claim that intuitions present objects to the mind immediately.¹⁷ Certainly the argument is not completely bulletproof; if someone does not accept that geometry and other sciences give us necessary synthetic a priori laws, then the argument would be unpersuasive. One can also certainly quibble with the sort of necessity that Kant offers and his view of necessity in general.¹⁸ However, it should be clear that Kant has provided

16 Despite his rationalizing of intuition, Kuno Fischer provides a nice statement of the kind of motivating idea in Kant's argument: "What we ourselves do is that of which we best know what it is and how it originates. Of all that our reason spontaneously produces nothing is as self-evidently clear as mathematical magnitudes. That is the reason the propositions of mathematics bring with them this supreme degree of evidentiality and certainty. We grasp that $2 \times 2 = 4$ with such perfect clarity and once and for all only because we create this truth ourselves, because we ourselves produce these magnitudes and their equation, because here conviction and action coincide in a single act" ("Raum und Zeit als die ersten Bedingungen der menschlichen Erkenntniß," in *Kant's Leben und die Grundlagen seiner Lehre* (Heidelberg: Carl Winter, 1906), 117. I follow the translation in Klaus Köhnke's *The Rise of Neo-Kantianism*, trans. R.J. Hollingdale (New York: Cambridge University Press, 1991), 133-4. Fischer also briefly raises this issue in his argument against Trendelenburg in *System der Logik und Metaphysik*, 175.

17 The argument also does not beg the question of whether correspondence to things in themselves is required for knowledge. The *conclusion* of Kant's argument is that such correspondence is not required, and it would completely beg the question to criticize Kant's argument for denying that correspondence to things in themselves is required for knowledge.

18 See the appendix to the third chapter for an objection from Trendelenburg to Kant's view of necessity.

independent justification for the second premise of the Argument for the Exclusive Mind-Dependence of Space. Ultimately, we have shown not only that this premise directly follows from the conception of intuition in the Aesthetic but that even if we do not share Kant's conception of a priori intuition, Kant gives us an independent argument, focusing on the nature of necessity, for the premise.

In light of our current discussion, we are now in a position to evaluate a couple different claims by Trendelenburg and Pistorius. First, recall that Trendelenburg accuses Kant of overlooking the possibility that our a priori intuition of space has validity for mind-independent objects; this is at least part of what Trendelenburg means by “objective,” when he says that Kant overlooks the possibility that space is both objective and subjective.¹⁹ Before evaluating this claim, we have to clarify the sense in which a priori intuitions have validity according to Kant. The a priori intuition of space grounds the existence of space, which orders appearances, and Kant describes appearances as the “field of validity” for space (A39/B56). To put it slightly differently, the a priori intuition of space only applies to appearances in virtue of making possible space, the form of appearances. In addition, a priori intuitions are referential - they are intuitions *of something*. The a priori intuition of space thus refers to this particular form of appearances, space. This leaves Trendelenburg with no room to maintain that our a priori intuition of space

¹⁹ Recall the formulations from chp. 3, p. 101 and 103:

Simple Alternative

Space is an a priori representation that originates in the human mind and applies to mind-dependent entities (and is thus, subjective), but it also applies to things in themselves (and is thus, objective).

Complex Alternative

Space is an a priori representation that originates in the human mind and applies to mind-dependent entities (and is thus, subjective), but it also has an origin outside of the human mind and applies to things in themselves (and is thus, objective).

(our original representation of space) could *also* have validity for absolutely mind-independent reality. Our a priori intuition, in virtue of being an intuition, directly refers to exactly one thing, space, the structure that orders outer appearances. In other words, in virtue of being an intuition, and thus directly referring to a particular object, our a priori intuition of space could not refer to more than one thing and so could not refer to a mind-independent structure.

This response might seem unfair to Trendelenburg. One might respond that Trendelenburg is likely thinking that our representation of space could have validity for mind-independent reality, because there could exist a close structural correspondence or isomorphism between the features our a priori intuition of space ascribes to space and the structural properties of mind-independent reality. The points that I have made on Kant's behalf do not address the possibility of this sort of structural correspondence. My own reply to this possibility is to agree that Kant's second premise does not rule out the possibility of correspondence between our a priori intuition of space and something completely mind-independent. *A fortiori* I will go on to argue that *nothing* in Kant's Argument for the Exclusive Mind-Dependence of Space rules out this possibility. However, this is no problem at all for Kant or his argument. According to the meaning that Kant intends for his premise that we cannot have a priori intuitions of the mind-independent, whether or not there is something mind-independent that corresponds to our a priori intuition of space is irrelevant. In addition, Kant has an independent argument (the one discussed above) for denying the possibility of a priori intuitions representing mind-independent objects in virtue of correspondence. Therefore, the alternative that our representation of space applies to both subjective appearances and mind-independent reality is not only eliminated by the way that Kant sets up his system, but Kant provides an argument that is independent of his particular

system for rejecting this possibility.²⁰

We are now also in a good position to evaluate Pistorius's Leibnizian version of the Neglected Alternative. Pistorius suggests the possibility that our representation of space represents or expresses properties of non-spatial things in themselves in virtue of a similarity or correspondence between our representation of space and things in themselves.²¹ Pistorius's hypothesis is importantly different from Trendelenburg's in that Pistorius specifies that our representation of space represents non-spatial features of things in themselves (Pistorius agrees with Kant that things in themselves are not in space). This means, in addition, that Pistorius's conception of representation is completely different from Kant's. Kant holds what would seem like an uncontroversial view: that what our representation of space represents or refers to is space. However, Pistorius conceives of representation in a broader way, in which a representation of x can represent or express an object that is not identical to x . This happens if our representation and some other object are relevantly similar or correspond or are isomorphic, and it allows Pistorius to hold that our representation of space can represent non-spatial things in themselves. This point is one way in which Pistorius thinks there is a gap in Kant's argument. Kant's response to this objection would look much like the response to Trendelenburg that we

20 The previous discussion sufficiently addresses the points that Edward Kanterian makes on behalf of Trendelenburg in his "Trendelenburg Versus Kant, Fischer and Bird," 268-9.

21 Here is the complete statement of the objection from Chp. 2:

Pistorius's Leibnizian Neglected Alternative: On the basis of the properties of space discussed in the Expositions, Kant concludes that space is something completely subjective. But it is consistent for space to have the properties discussed in the Expositions while it also being the case that space expresses or represents properties of non-spatial things in themselves in virtue of a similarity or correspondence between our representation of space and things in themselves. This shows that Kant's conclusion that "Space represents no property at all of any things in themselves nor any relation of them to each other"(A26/B42) is unfounded.

have just considered. Pistorius may have a conception of representation according to which our representations can relate to things in themselves, but Kant's system rules out the possibility of a priori intuitions relating in this way, and he gives an independent argument that rules out a view of representation like Pistorius's (specifically, in the case of representations that are a priori intuitions). So, Pistorius's Leibnizian version of the Neglected Alternative is unsuccessful. Now, however, we should consider Pistorius's other formulation of the Neglected Alternative, the empiricist version, as it also focuses on how our representation of space refers and raises more difficult issues that we will need to address.

4.2. The Fourth Step and the Source(s) of Space

Recall from the second chapter that one form of the Neglected Alternative developed in Pistorius's reviews goes like this:

Pistorius's Empiricist Neglected Alternative: On the basis of the properties of space discussed in the Expositions, Kant concludes that space is something completely subjective. But it is consistent for space to have the properties discussed in the Expositions while it also being the case that space expresses or represents properties of things in themselves, in virtue of things in themselves causing certain features of space. This shows that Kant's conclusion that “space represents no property at all of any things in themselves nor any relation of them to each other” (A26/B42) is unfounded.

The key claim here is that Kant has not ruled out the possibility that things in themselves cause space to have certain properties. The motivating hypothesis is that space is a structure that

originates from the combination of two sources: a priori intuition in the subject and things in themselves affecting the subject. In other words, Kant shows that space originates in a priori intuition, but he fails to show that this is the only source. If it is the case that space is caused to have some properties by things in themselves, then on Kant's own causal theory of empirical representation, space would represent things in themselves, and so his conclusion that space represents no properties of things in themselves would be false. This hypothesis targets the fourth step of Kant's argument rather than the second premise. The hypothesis holds that even though our a priori intuition of space does not refer to anything mind-independent, since some aspects of space are caused by things in themselves, Kant cannot move to the claim that space is not mind-independent.²²

In evaluating this hypothesis, we must distinguish between two closely related, though distinct claims. The first claim is that the determinate spatial properties of particular objects are partially grounded in the nature of things in themselves. For example, facts such as that this table has a circular, rather than rectangular, shape and that it stands in specific distances from other objects in this room are partially caused by features (not necessary spatial features) of the things in themselves that affect me. A further hypothesis, and one that Pistorius also endorses, is that through our experience with such objects, space itself acquires certain features; for example, the geometrical properties of space are partially caused by our experiences with objects that already have a determinate shape and other geometrical properties. Since this latter hypothesis grows out of the former, my focus will be on the former hypothesis and whether Kant has the resources to

²² The relationship between the terms “representation of space” and “space” become somewhat convoluted on this picture. The a priori intuition of space still functions as the original representation of space, but space itself which is partially grounded by the a priori intuition of space is also representational, since it represents the things in themselves that cause it to have certain properties.

rule it out.

Bracketing the move to the second hypothesis for a moment, one might doubt whether it would be a problem for Kant to admit the first hypothesis. So long as space itself is not caused by or determined by features of things in themselves, it seems that Kant's claims about the ideality of space in the Aesthetic could stand, while it being the case that the particular distribution of spatial properties reflects mind-independent reality. I have some sympathy for this view, but I will not pursue this line of argument, because I will show that it is clear that Kant in fact rules out the hypothesis that the particular spatial predicates of objects are in any way grounded in transcendental reality.²³

The first important textual point to note is that Kant very clearly denies that at least one particular spatial property – shape – could be part of the matter received by intuition; instead shape originates entirely in the form of the intuition. This point is explicitly made in a couple of his lectures on metaphysics shortly before and during the Critical period. For example in the *Metaphysik Mrongovius* (1782-3), Kant says that “the matter of all representations is sensation which are a posteriori. - If I omit everything from intuition, I still retain the form, i.e. the shape” (Ak. 29:795) and that “with a body I think of nothing more than space and shape, i.e. the form of intuition” (Ak. 29:796).²⁴ Thus, the matter of intuition is something given a posteriori and shape belongs to the form of intuition, which is contributed a priori.

²³ Recent work on Kant's view of freedom has touched on closely related issues. Eric Watkins endorses a view he calls the “Grounding Thesis” on which things in themselves not only ground the existence of appearances, but things in themselves also ground *the laws* that govern appearances (*Kant and the Metaphysics of Causality* (New York:Cambridge University Press, 2005), 328). This thesis is important for Watkins's interpretation of Kantian freedom, as our noumenal self must in some way influence the actions of the phenomenal self, and the thesis does receive strong support from a passage in the *Groundwork* (Ak. 4:453).

Insofar as the Grounding Thesis applies to laws that govern the nature of space, I reject it.
²⁴ Cf. *Metaphysik L₁* from the mid 1770s (Ak. 28:211) and A167/B208.

What is less clear is the extent to which shape and, especially, other spatial properties are contributed by a priori intuition rather than the a priori functions of the understanding. By no means do I want to suggest that sensibility is subsumed under the understanding (or vice versa), but instead I will argue that on Kant's complete picture of spatial cognition, sensibility and understanding both independently play essential roles in the determination of spatial predicates. Therefore, it may be that Pistorius is partially correct; the Aesthetic might leave open the possibility that some of the spatial features of objects that Pistorius mentions are *not* contributed by the a priori intuition of space. Recall that Pistorius appeals to the case of Cheselden's newly-sighted patient to show that the distance and size of an object is not given through a priori intuition but is instead cognized through experience. Kant arguably leaves open this sort of possibility in the Aesthetic, but I will show that any gap is removed later in the *Critique* (especially the Analytic) and in a way inconsistent with Pistorius's empiricism. To see that Kant thinks that there is more than just a priori intuition of space involved in our cognition of determinate spatial objects, consider the First Antinomy, where Kant specifically mentions the properties of size or magnitude:

Thus things, as appearances, do determine space, i.e., among all its possible predicates (magnitude and relation) they make it the case that this or that one belongs to reality; but space, as something subsisting in itself, cannot conversely determine the reality of things in regard to magnitude and shape, because it is nothing real in itself (A431/B459).

In short, space does not determine the magnitude and shape of appearances.²⁵ Instead a particular appearance that occupies a region of space is what makes it the case that that region has the

²⁵ That distance, too, is determined by appearances rather than space itself is suggested by the parenthetical that lists “magnitude and relation.” Cf. Kant's statement about appearances towards the beginning of the Aesthetic: “in space their form, magnitude, and relation to one another is *determined, or determinable*” (A22-23/B37; my emphasis).

magnitude and shape that it does.

Without any more information, this passage seems consistent with Pistorius's view. If appearances are just things in themselves, then things in themselves might determine that the objects we experience have particular magnitudes or shapes.²⁶ However, as we briefly discussed in the first chapter, the understanding contributes to our cognition of space as an object, and so it should be little surprise that the understanding is also involved in our cognition of particular spaces or cognition of particular spatial objects. Recall one of the passages in our earlier discussion:

Thus, the mere form of outer sensible intuition, space, is not yet cognition at all; it only gives the manifold of intuition a priori for a possible cognition. But in order to cognize something in space, e.g., a line, I must draw it, and thus synthetically bring about a determinate combination of the given manifold, so that the unity of this action is at the same time the unity of consciousness (in the concept of a line), and thereby is an object (a determinate space) first cognized (B137-8).

Here our focus is on Kant's idea of a “determinate space.” The picture he presents is that we receive a manifold of undetermined intuition ordered in space, which is processed by the understanding, and the result is a determinate object in space or a determinate particular space. Kant gives an especially helpful example at the end of the B deduction. There, he discusses the empirical intuition of a house and states that to turn this intuition into a perception, I am required to “draw its shape in agreement with the synthetic unity of the manifold in space” (B162). Thus, we cognize the shape of the house through the understanding synthesizing a manifold of empirical intuition. This process is described in more detail later in the Axioms of Intuition. The

²⁶ This passage in isolation is also consistent with the possibility that even though things in themselves and appearances are not identical, things in themselves cause appearances to have the particular spatial properties that they do.

general view that emerges is that through intuition, we receive the parts of an object (the matter) ordered in space and time, and the job of the understanding is to combine these parts and unify them into a new whole.²⁷ Further, this process is what gives an object the sort of properties that Pistorius considers in the case of Cheselden, like magnitude and distance.²⁸ Kant thus gives an account of how we cognize these properties that eliminates the possibility that these properties are given to us by things in themselves.²⁹

To summarize, the *Critique* develops a view of spatial cognition in two parts. First, in the Aesthetic, Kant argues that space originates in us through an a priori intuition. In arguing for this Kant establishes that space has certain properties like being infinite and a *totum*. What this entails is that outer objects are intuited *in* the kind of structure described in the Aesthetic, and this structure necessitates that the objects intuited in it are the kinds of things that have properties like shape, magnitude, and distance. Later in the Analytic, Kant explains how it is that objects come to have determinate spatial properties like a determinate shape or determinate distance from another object. Such properties involve both the understanding and sensibility, as the properties are generated through the synthesis of a manifold of intuition. It is important to reemphasize that

27 A determinate space or a determinate object is thus a *compositum*, not a *totum*. Since here Kant talks specifically about a *determinate* space, there is no conflict with Kant's claim in the Aesthetic that (undetermined) space is a *totum*. In other words, the form of intuition has the structure of a *totum* and we combine what is given in intuitions, including the form, to generate an object in a determinate space. Cf. Daniel Sutherland, "The Point of Kant's Axioms of Intuition," *Pacific Philosophy Quarterly* 86, (2005): 140-2.

28 Specifically, the Axioms of Intuition provide an account of how the magnitude of an appearance is established; Kant's account of how the distance between appearances is established is somewhat more oblique but comes out in the Third Analogy's discussion of the category of community. James Messina convincingly argues that the position of objects and distance between objects is the result of the understanding producing judgments with the category of community. See his "Kant's Hidden Ontology of Space," 219-20.

29 In the previous argument I am heavily indebted to work by James Messina and Daniel Sutherland.

this picture does not reduce space to a function of the understanding.³⁰ Rather, it holds that at least some determinate spatial properties of particular objects are only established through the combined work of intuition and synthesis.³¹ The a priori intuition of space still remains as a fundamental representation of sensibility that necessitates that our intuitions are ordered in space, independently of any action by the understanding.

As an aside to this discussion, my focus has been on a potential problem with things in themselves causing our intuitions. Some may deny that this is a feature of Kant's philosophy at all; if this is correct, then Pistorius's Empiricist Neglected Alternative cannot get off the ground in the first place. However, I do think that affection by things in themselves is a feature of Kant's system, and so we cannot reply to Pistorius's objection so quickly. At the same time, it is instructive to note that Kant sometimes views the relevant faculties in his philosophy (sensibility, understanding, and imagination) in two different ways. The way relevant to his philosophical system in the first *Critique* is viewing the faculties in a “transcendental” way, as the processes that build up the world we experience. However, Kant sometimes says that these same faculties can be understood “empirically,” as something like physiological processes of the human brain in a physical world (A94). If we view the faculty of sensibility *empirically* then it may very well make sense to say that the objects that affect us determine particular spatial properties in our

30 The view that Kant subsumes the sensibility under the understanding or at least that the understanding conditions sensibility has become somewhat popular recently, though it goes back at least as far as criticisms by Hegel. On Hegel's criticisms of Kant's view of space and sensibility, see Scott Jenkins, “Hegel on Space: A Critique of Kant's Transcendental Philosophy,” *Inquiry* 53, (2010): 333-42. For a recent argument against such views, see Colin McLear, “Two Kinds of Unity in the *Critique of Pure Reason*.”

31 Sutherland describes the properties of space given by the a priori intuition of space as “general 'topological' features” and holds that the Axioms of Intuition show that “a metric can be applied to space and time, and hence to the objects that appear in them” (“The Point of Kant's Axioms of Intuition,” 139).

perceptions of them (e.g. that I see this table as circular rather than rectangular and that I see this table in this particular space). Still, we are interested in the faculties as faculties of transcendental philosophy, and I have argued that Kant creates a system where every spatial property is grounded in the nature of sensibility and understanding; thus, there is no room to maintain that the affecting objects contribute to whether the objects of experience have the spatial properties that they do.

Returning more directly to Pistorius's objection, we should now consider the case of geometry separately, since it is an even sharper point of contention between Pistorius and Kant. Kant famously holds that geometry is a completely a priori science, whereas Pistorius holds (again appealing to Cheselden's case) that geometrical properties are partially grounded in features of mind-independent objects. Still, Kant's response to Pistorius would look similar to his response in the case of properties like shape. Kant does acknowledge that when we prove geometrical theorems, more is involved than just a priori intuition. The geometer considers determinate spaces, which means that processing by the understanding is involved in addition to intuition, though the a priori intuition of space remains as the essential root in our geometrical cognition.³² All the elements involved in our knowledge of geometry are ultimately a priori, so absolutely no room remains for Pistorius to hold that geometrical knowledge is conditioned by experience.

I have shown that Kant's doctrine clearly eliminates the possibilities that Pistorius appeals to in his Empiricist Neglected Alternative. According to Kant, all that interaction with objects

³² Kant is most explicit about this point in a review of the work of Kästner (Ak. 20:410-23). There he characterizes geometry as a consideration of space as it is “made” [*gemacht*] in contrast to metaphysics, where space is considered only as given. For discussion of this passage, see Emily Carson, “Kant on Intuition in Geometry,” 497-8.

contributes to our cognition is merely sensation and nothing that has anything to do with the formal properties of space is thereby contributed. However, it might be that Kant holds this view, because he has not carefully considered a case like the one to which Pistorius appeals, Cheselden's patient, and if Kant were to, he would be compelled to revise his picture of cognition. Thus, we should briefly consider what Kant should say about Cheselden and his newly-sighted patient.

Kant discusses blindness in his *Anthropology from a Pragmatic Point of View*, though very briefly. First, he describes the phenomenon of temporary blindness from harsh light as the phenomenon of being unable to find an appropriate concept, due to the intensity of the sensation (Ak. 7:156-7). Later, he specifically mentions people who are born lacking a particular sense. Kant holds that such people compensate for the non-working sense by employing their other senses and a strong use of the imagination. He discusses the example of someone born without sight, who will have to use touch and hearing to perceive spatial objects. Further, if this person were to regain sight, he would need to “learn to see” which means he must “try to bring his perceptions under concepts of this kind of object” (Ak. 7:172-3). In other words, a person who regains their sight would require experience with objects, before they could apply the appropriate concepts to objects. Especially interesting is a set of lecture notes from around 1791-2 that indicates that Kant was directly aware of Cheselden's case. In the Dohna-Wundlacken anthropology notes, Kant appears to discuss the perceptions of people who were born blind and later regain their sight. He says that they see three-dimensional spheres only as circles, which supports his claim that “the eyes present [vorstellen] objects to us only as surfaces [Flächen].”³³

³³ *Die philosophischen Hauptvorlesungen Immanuel Kants*, ed. Arnold Kowalewski (München and Leipzig: Rösl & Cie, 1924), 94 (my translation). This passage is not well-written and does not mention Cheselden by name. However, later in the passage, Kant does mention that the

Again, the idea is presumably that experience with objects is required before we can see some feature of the objects, in this case their three-dimensionality. Thus, Kant seems aware of and accepting of the relevant empirical data to which Pistorius appeals.

However, Kant is in a good position to deny the conclusions that Pistorius wishes to draw from this data. Blindness is a feature of a person at the empirical level. Kant's arguments in the *Transcendental Aesthetic and Deduction* are aimed at uncovering what makes experience and the empirical level possible in the first place. Thus, any empirical investigation into the constitution or physiology of our five senses would have nothing to say about Kant's transcendental philosophy.³⁴ More specifically, the eyes are empirical objects that we know and experience as a result of what our sensibility and understanding (in the transcendental sense) produce. It would thus be incoherent to reduce sensibility to what we experience through our eyes, ears, etc.³⁵ So, when Kant talks about a newly-sighted person needing to learn how to apply concepts, this does not mean that the *Transcendental Deduction* of our a priori concepts is invalid for the person. Rather, the person would specifically need to learn how to apply *empirical* concepts. For example, the person would not be able to recognize chairs until they were able to successfully

patient who acquired sight was not able to distinguish between cats and dogs via sight alone, which is an anecdote presented in Cheselden's article ("An Account of some Observations...", 448). These lecture notes also mention a "blind man in England," but the description does not match anything in Cheselden's article. Regardless, Kant's presentation of the anecdote about cats and dogs is alone sufficient to very strongly suggest that he had some familiarity with Cheselden's case. Cf. Hatfield, *The Nature of Normativity*, 310n.

34 On the question of how to characterize the nature of Kant's anthropology lectures, see Holly Wilson, *Kant's Pragmatic Anthropology* (Albany: SUNY Press, 2006), 20-6.

35 Cf. Jonathan Bennett, *Kant's Analytic* (New York: Cambridge University Press, 1966), 19-22. Still, Kant does sometimes slip and talk about transcendental idealism in terms of the brain (see, e.g., 484/B512). Schopenhauer is one philosopher who often explicitly describes transcendental idealism in physiological terms. See, i.a., his *World as Will and Representation* Vol. II, 3-12. More recently, Falkenstein has endorsed viewing Kantian sensibility as a function of the physical body (*Kant's Intuitionism*, 11-12 and 119-23 especially).

apply the concept of a chair. However, facts about the size of chairs and distances between chairs and other objects would still be completely determined by the intersubjectively valid laws of human sensibility and understanding. The fact that Cheselden's patient does not know how to apply empirical concepts to the objects around him results in his having a different sort of empirical experience from the experience of those who have been sighted for a longer period of time, but it cannot tell us anything about the transcendental conditions that underlie experience and make experience possible in the first place. Since spatial properties like figure and magnitude, as well as the science of geometry, follow from these transcendental conditions, the case of Cheselden fails to undermine Kant's argument in the *Critique*.

The argument in this section suffices to show that Pistorius's empiricist version of the Neglected Alternative is unsuccessful. Though we needed to look beyond the Aesthetic to fully address it, when we did, we saw that Kant's complete picture of cognition eliminates empirical elements from being involved in producing the structural features of space. Thus, since we covered his Leibnizian version earlier, neither version of the Neglected Alternative from Pistorius is successful.³⁶

4.3. The Fourth Step: Could there also be a Mind-Independent Space?

³⁶ One aspect of Pistorius's criticism that I brought up in the second chapter but have not discussed here is his claim that the parts of space have priority over the whole. This criticism, though important for understanding Pistorius's view of space, is not related to the Neglected Alternative objection since it directly challenges the content of Kant's Expositions – specifically Kant's claim that space is a *totum*. The Neglected Alternative concerns Kant's ability to move from the claims in the Expositions to the conclusion that space is completely mind-dependent.

The previous section has considered a very specific challenge to the fourth step in Kant's argument. We should now consider a more general and perhaps more natural challenge. At first glance, Kant's claim that space is not mind-independent seems to follow directly from the combination of our representation of space being most fundamentally an a priori intuition and a priori intuitions not being of anything mind-independent. However, the following sort of possibility may provide a counter-example to this inference: we do indeed have an a priori intuition of a mind-dependent space that orders experience, but there *also* exists a mind-independent space that orders things in themselves (even though we may have no epistemic access to this mind-independent space). In this way, the first two premises and the intermediate conclusion in the third step could be true, while it being the case that a mind-independent space exists. If this is a possibility, then Kant's inference in the fourth step is false, since it does not necessarily follow from the previous points that space is not mind-independent. As I argued in the third chapter, Trendelenburg sometimes seems to not only accept that our representation of space is valid for or applies to things in themselves but that things in themselves really exist in space. His view may be that there exist two instances of space, one that is accessed through a priori intuition and is mind-dependent, and one that exists completely independently of our cognitive activity. This is exactly the sort of hypothesis that appears to pose a significant problem for Kant's fourth step.

One issue is that Trendelenburg and other philosophers who raise an hypothesis like this do not explain the details of the hypothesis. Why is it that there are two instances of space, rather than one space and another structure that is just similar to space? In short, what conception of

space is assumed by this sort of hypothesis? Not any conception will do. For example, we might think of space indexically: space is this particular structure in which *we* experience objects outside of us. On this conception of space, it would not be possible for space to exist as a structure that is completely beyond our cognitive access. Instead, Trendelenburg must be thinking of space like this: we have a concept or representation of space, and a structure is designated as “space” in virtue of having the properties ascribed to space by the concept or representation of space. Further, these properties must be general properties that could be had by multiple structures, in order for more than one space to exist. To figure out what properties these may be, we can look to the specific arguments in Kant's Expositions. There, we can find three such properties: (1) having a Euclidean geometrical structure, (2) being infinite, and (3) having the mereological structure of a *totum*. We will consider these features in turn.

First, the Transcendental Exposition in the B edition tells us that “[g]eometry is a science that determines the properties of space synthetically and yet a priori” (B40; cf. A24). Though Kant rarely says so explicitly, the geometry he has in mind is Euclidean geometry. Many philosophers have been hung up on this last point. In the nineteenth century alternative geometrical systems were extensively developed, and it was no longer clear that space had a Euclidean structure rather than a structure in accordance with one of these alternative geometries. Some have thought that if in the Aesthetic, Kant intends to prove that space necessarily has a Euclidean structure, then his proof must be defective since it is unclear that space is Euclidean or even doubtful that it is Euclidean. This sort of worry need not concern us here. In the Transcendental Aesthetic, Kant does not appeal to any of the specific features of Euclidean geometry in his argument. For our purposes, Kant's important commitment is that cognition

involving our a priori intuition of space gives us access to the geometrical features of space, whatever they may be.³⁷ With this caveat in mind, we will consider having a Euclidean geometric structure to be an essential characteristic of space.

Does Kant provide any reason to think that a mind-independent space could not be Euclidean? I think the answer is “no,” though to most clearly see the answer, we should consider Euclidean geometry in a somewhat anachronistic way: as an axiomatized system. Consider Hilbert's axiomatization of Euclidean geometry according to which there are three primitive entities (points, straight lines, and planes) and also primitive relations (betweenness, containment, and congruence of various sorts). We can imagine there accordingly being three different categories of things in themselves with various relations between them in such a way that we can interpret each of these kinds of things in themselves and these relations so that they provide a structure that satisfies the axioms of Euclidean geometry.³⁸ Though on Kant's system, we cannot know that such a structure exists, he has yet to give us a reason to think that such a structure could not exist.

Second, the fourth Metaphysical Exposition in B tells us that space is an “infinite given magnitude” (B39; cf. A25). Kant explains that this means that space is thought as if it contains

37 This commitment does raise further issues that are beyond the scope of this dissertation. Kant draws support for his claim that a priori intuition gives us access to the geometrical properties of space from the actual geometrical practice of his day. The axiomatization of geometries after Kant's time does seem to undermine Kant's link between a priori intuition and mathematical practice, though there may be room to claim that a priori intuition is necessary to establish the truth of the axioms. On this point, see Michael Friedman, *Kant and the Exact Sciences* (Cambridge: Harvard University Press, 1992), 81. For a good discussion of the link between a priori intuition and the actual practice of geometers, see Lisa Shabel, “Kant's 'Argument from Geometry,’” 208-14. For a quick overview of Kant's relationship to Euclidean geometry, see Gordon Brittan, “Kant's Philosophy of Mathematics,” in *A Companion to Kant*, 233-4.

38 Cf. Falkenstein, *Kant's Intuitionism*, 262-3 and Peter Herissone-Kelly, “The Transcendental Ideality of Space and the Neglected Alternative,” *Kant-Studien* 98, (2007): 279-81.

“an infinite set of representations within itself” (B40). This entails both that space is infinitely large: each representation of an individual space must be considered to be part of a larger region of space, but also infinitely divisible: each representation of a space can in principle be indefinitely subdivided into representations of smaller regions. Since Kant describes the infinitude of space in terms of representations, strictly he has in fact ruled out the possibility of something completely mind-independent being infinite. However, I think it is not difficult to find an appropriate analogue to Kant's characterization of the infinitude of space that could very well apply to mind-independent structures. A structure is infinite if it contains an infinite number of parts.³⁹ In line with Kant's characterization, each part can be indefinitely subdivided into more parts and each part is contained in a larger part. Thus, let us suppose that the hypothesized mind-independent structure (the additional mind-independent “space”) has these mereological features. Though there is an important worry about objects actually having an infinite number of parts throughout Kant's corpus, this worry is not present in the Aesthetic and we can set it aside until the next chapter.⁴⁰

One more property of space is revealed in the third Exposition. There, Kant tells us that the entirety of space grounds the division of space into parts. He describes space as “essentially single” and says that the parts of space “cannot as it were precede the single all-encompassing space as its components (from which its composition would be possible), but rather are only thought in it” (A25/B39). The idea is that the parts of space are abstractions or derivative from the whole structure, and the parts of space could not exist without the entirety of space existing. Later, in the Antinomies, Kant identifies this property as being a *totum* rather than a *compositum*,

³⁹ Cf. Michael Friedman, *Kant and the Exact Sciences*, 70.

⁴⁰ See p. 192ff.

an entity in which the parts precede the whole entity (A438/B466). There is no obvious incoherence in claiming that a mind-independent structure is a *totum*.

To put the three qualities together, let us understand the hypothesized mind-independent space as a structure that can be interpreted to satisfy the axioms of Euclidean geometry and has an infinite number of parts, where the parts exist only in virtue of the whole structure. Here, it looks like we would face some resistance from Kant, who maintains that a transcendently real structure could not be thought to both contain an infinite number of parts and be completed, meaning that all of these infinite parts have actually been generated.⁴¹ We will cover this issue in the next chapter, but for now, we need only note that Kant is specifically worried about thinking of an infinite, completed *compositum*, that is built up from its parts. Since we have specified that a possible mind-independent space would have to be a *totum*, where the whole is the most fundamental mereological aspect of the structure, we can avoid this worry.

But even though we can make sense of the idea that there is a mind-independent space in addition to the space of appearances, Kant has the resources to rule out this possibility. Over the course of the Expositions, we learn that an essential feature of our representation of space is that it is an intuition, and this entails that it has singular reference. Since space is what our representation of space refers to, or equivalently, space is what our a priori intuition of space is an intuition of, and we have established that it must refer to something mind-dependent, in particular the mind-dependent structure that orders outer appearances, then it is impossible that it also refers to a mind-independent structure. However, if the representation of space were a concept, it could potentially refer to an indefinite number of structures, since concepts refer to or

⁴¹ See *Metaphysical Foundations of Natural Science*, Ak. 4:506 discussed in the next chapter (p. 195) and *Metaphysik Mrongovius*, Ak. 29:855.

apply to an object in virtue of “marks” “which can be common to several things” (A320/B377). The mistake on the part of the proponents of the Neglected Alternative is thinking that our fundamental representation of space functions as a concept and could apply to multiple, entirely distinct structures.⁴²

This is one mistake that Trendelenburg makes. Even though he acknowledges that we have an a priori intuition of space, he thinks that the word “space” functions like a concept that can apply to multiple structures. But why exactly is this a mistake? Why is it not just another way to consider space, a way that Kant overlooks and simply rules out by fiat? To answer this question, it is helpful to look back to the beginning of the Transcendental Aesthetic. Recall how Kant begins the introductory paragraph to the Metaphysical Expositions on space: “By means of an outer sense (a property of our mind) we represent to ourselves objects as outside us, and all as in space. In space their shape, magnitude, and relation to one another is determined, or determinable...Now what are space and time?” (A22-3/B37) Kant goes on to list the possible ontological statuses that space and time could have. What is clear is that Kant is interested in two particular structures in which we experience objects. Over the course of the Expositions, Kant endeavors to show that these structures originate in an a priori intuition and further that these structures *entirely* originate in a priori intuition and have no connection to anything outside of our minds. Kant seems to have completely accounted for the phenomena that he intends to explain at the beginning of the Expositions.

42 One might object that Kant talks about a concept of space, too, and so Trendelenburg and Kant view our representation of space in the same way. The difference is that Trendelenburg commits himself to the view that the primary or most fundamental way of representing space is conceptually, whereas Kant holds that most fundamentally we access space through a priori intuition. For Kant, our concept of space is a concept of this particular structure that we intuit and is thus less fundamental than our representation of space through a priori intuition.

We could choose a different starting point. We could start by considering the particular instances of space and time in which we experience objects, while viewing these as only one instance of space and one instance of time among (at least possibly) many. But this starting point seems unmotivated; if there is only one space and one time that we experience and have any epistemic access to, it seems pointless and somewhat strange to leave open the possibility of the existence of other instantiations of space and time. It would be like investigating the architectural properties of the Statue of Liberty but qualifying your conclusions by saying that you have only considered this particular Statue of Liberty and that we need to leave open the possibility of other Statues of Liberty, even granting that we could never know about these other Statues of Liberty. The more sensible thing to say would be that you have investigated the Statue of Liberty and that is the end of the story. Thus, Kant's choice to view "space" as a word that applies to just one particular structure seems to be the most natural way of using the term, especially in light of the result that space is grounded in a priori intuition.⁴³

At this point, we have responded to all of Trendelenburg's relevant points concerning the Neglected Alternative. Before moving on, however, we should consider two variations of the

⁴³ Two side-notes to this discussion: (1) Jonathan Bennett considers linguistic considerations of the words "space" and "spatial" in his *Kant's Analytic*, 62-4. He argues that it does not follow from the fact that the word "space" refers to a particular structure that every object that has the property of being "spatial" is a part of space. This is because the word "spatial" is most naturally understood to mean "being like space in certain formal respects." Bennett concludes that Kant is wrong to assert that anything spatial is a part of space. However, this argument is neither here nor there, as Kant does not make such an argument. Kant does not concern himself with the property of being spatial, at least in Bennett's sense, and can accept that there are mind-independent objects that are spatial in Bennett's sense without endangering any of the conclusions in the Aesthetic. (2) One might worry that Kant's way of talking about "space" would mean that discussions of different kinds of spaces by physicists or mathematicians is incoherent. However, I think such talk can be viewed, without violence, as discussion of the possible ways space, the particular structure in which we experience objects, could be.

Neglected Alternative that, to my knowledge, have not been presented in the literature but are closely related to Trendelenburg's take on the Neglected Alternative. The first variation might hypothesize that there are two different spaces that we can characterize as a mental space and a physical space.⁴⁴ The mental space is constructed in our minds a priori, and the physical space is what orders objects in the external, physical world. In addition, we may hold that these spaces do not exactly correspond. For example, mental space might have different geometrical properties from the space that exists in the physical world. Kant may show that mental space is nothing outside of the human subject, but he fails to show that physical space could not exist independently of humans.

This hypothesis, however, fails to find a problem with Kant's Argument for the Exclusive Mind-Dependence of Space. One consequence of demonstrating that we have an a priori intuition of space is that the spatial form of outer objects, the physical objects we experience, is contributed entirely by the subject.⁴⁵ Thus, the spatial features of outer objects cannot in any way come from mind-independent reality. In addition, even if the space that structures physical objects had properties that differed from how we represent space a priori, the space that structures physical objects in our experience would still be mind-dependent, since any properties physical objects have in themselves, or independently of human cognition, are unknowable to us.

⁴⁴ In comments on a different paper, an anonymous referee claimed that this is the correct formulation of the Neglected Alternative objection. Herbart does not exactly endorse a view like this, but he comes somewhat close. According to Herbart, we first acquire the idea of discrete space. We then go on to develop a conception of a continuous space that reflects the nature of mind-independent reality. See J.F. Herbart, *Allgemeine Metaphysik: Zweyter, systematischer Theil* (Königsberg: 1829), § 263-78. For summary, see Gary Hatfield, *The Natural and the Normative: Theories of Spatial Perception from Kant to Helmholtz* (Cambridge: MIT Press, 1990), 119-22.

⁴⁵ This is somewhat of simplification, as my argument in the last section has demonstrated. A priori intuition plus synthesis together completely determine the spatial features of the objects we experience.

To postulate a completely mind-independent physical space would be to postulate something completely unknowable and unrelated to any possible human experience. This would raise the question of why such a structure should be considered space, and the only plausible answer is that it is space in virtue of having certain structural properties. However, this would be to treat space as a concept, which, as I have just argued, is unmotivated.

Finally, there is one more alteration we could make to Trendelenburg's Neglected Alternative hypothesis. Inspired by “one-world” views of transcendental idealism, one could hold that Kant overlooks the possibility that space has two aspects, or a dual-nature as both subjective and objective.⁴⁶ The proponent of this imagined view might concede that our representation of space refers to a mind-dependent structure, but this is just because of the limitation of human cognition. It might be that this mind-dependent structure is a part or, better yet, aspect of a larger structure that also has a mind-independent aspect that orders things in themselves. Space is this entire structure with both the mind-dependent and mind-independent aspects; we intuit this structure, space, by intuiting the mind-dependent part. Though I do not think Pistorius actually endorses this view, he comes close to elaborating an hypothesis like this in one of his descriptions of space and time:

Because they lie between our activity and its objects as the unifying and connecting middle ground (between what is subjective and what is objective) and touch both, they also have, as it were, something of both. Their intermediate nature is responsible for the fact that in a manner of speaking one can take them to be either, depending on whether one considers them from this or that side.⁴⁷

In order to address this alternative formulation of the Neglected Alternative, consider: what could

⁴⁶ On “one-world” interpretations, see chp. 1, p. 31. I am not asserting that advocates of one-world interpretations would endorse the hypothesis under consideration.

⁴⁷ Pistorius, “Schultze Review,” 100 (Sassen's translation).

make the mind-dependent and mind-independent aspects both parts of this same thing, space?

The most plausible answer is that there is a correspondence or similarity between the mind-dependent and mind-independent parts. So, suppose that for each object that appears to us in our mind-dependent part of space that orders intuitions there is a corresponding thing in itself that is ordered in a mind-independent structure that is an infinite Euclidean *totum*, where this ordering exactly parallels the spatial ordering of appearances.

However, there are very strong textual resources from Kant that show that this is not a possibility in which space has a dual nature. Instead, this would be a case in which there exists space, a mind-dependent structure, and an additional mind-independent structure that is in no way a part of space. According to Kant, space is necessarily unified. Recall that in the Expositions, he states that “one can only represent a single space, and if one speaks of many spaces, one understands by that only parts of one and the same unique space” (A25/B39) and that he goes on to say that “these parts cannot as it were precede the single all-encompassing space as its components (from which its composition would be possible), but rather are only thought in it. It is essentially single...” (A25/B39). Thus, space is also a *totum*. In the situation we are entertaining, however, there is no sense in which space would be unified, and there would be no reason to think that it is a *totum*. Specifically, we can very naturally divide space into two different parts, the mind-dependent and the mind-independent, and there is no reason to think that these parts exist only in virtue of a whole that encompasses both.

Consider first the point that our hypothesized space is not appropriately unified or singular. This is because we can identify two distinct structures, the space of appearances, which we experience, and a separate mind-independent space, each of which is unified. If a region of

space is a part of one of them, there is no sense in which it is a part of the other; it is either a part of the unified space of appearances or it is a part of (we suppose) the appropriately unified mind-independent structure. These two structures share certain structural properties, but they have entirely distinct parts that do not interact. Thus, it is not at all clear how these two structures can be put together to form the singular, unified structure that is space, and this alone gives Kant a reason to reject that the described structure is space.

But in addition, even if these two structures together did form a singular, unified structure it would not be the right sort of unified structure: a *totum*. For if it were a *totum*, it would be impossible to conceive of one of its component structures (e.g. the mind-dependent part of space) existing without considering this component as a part of the whole structure that consists of both the mind-dependent and mind-independent aspects. But it clearly is possible; note that when we state the hypothesis that space has both mind-dependent and mind-independent parts, we describe space by describing two different structures and claiming that these together constitute space. We conceptually build up space from two different parts, and so when we consider this hypothesis, we most naturally think of space as a *compositum*: a structure where the whole structure exists in virtue of its parts. In fact, I think this is the only way we can make sense of the considered hypothesis, since we cannot make sense of the hypothesized space being unified (if we can at all) prior to understanding the structural properties of its different parts. The advocate of this hypothesis might point out that even though we have to think about the structure by mentally building it up from its parts, there is no contradiction in the common structural properties actually unifying the two parts into a *totum*. But this riposte fails, because in the hypothesized scenario, the two different structures each have their structural properties (being

Euclidean, infinite, and *tota*) independently of each other and independently of any whole they may compose. Thus, the parts exist prior to and independently of the whole, and so the whole composed of them is not itself a *totum*. If they are not parts of a *totum*, then they are not parts of space since space is essentially a *totum*. Therefore, Kant is justified in rejecting the claim that this hypothesis describes a scenario in which space has both mind-dependent and mind-independent aspects.

My goal in these three sections has been entirely negative: to show that in the Aesthetic, Kant has provided sufficient evidence to rule out the hypothesis that there exists a mind-independent space in addition to the mind-dependent space that provides a form for outer experience. Building on this work, and synthesizing it together, in the next section I will lay out a more positive defense of Kant and show how it is that his Argument for the Exclusive Mind-Dependence of Space is able to entail its conclusion.

4.4. The Success of Kant's Argument

We are now in a good position to return to Kant's Argument for the Exclusive Mind-Dependence of Space and to assess the extent to which it succeeds. Here it is again, for ease of reference:

The Argument for the Exclusive Mind-Dependence of Space

- 1) Our representation of space is an a priori intuition [from the Expositions].
- 2) We cannot have a priori intuitions of anything mind-independent [entailed by the

“Conclusions”].

- 3) So, we intuit a mind-dependent space [from 1) and 2)].
- 4) If 1), 2), and 3), then space is not mind-independent.
- 5) So, space is not mind-independent.
- 6) Then, space is exclusively mind-dependent [from 5)].

Recall also that the Neglected Alternative challenges all the moves made after the first premise. In other words, it denies that Kant can successfully move from the claim that our representation of space is an a priori intuition to the conclusion that space is exclusively mind-dependent. The arguments of the previous three sections have defended Kant's second premise and the conditional in the fourth step. The third statement is an inference from the first two premises and is not strictly necessary for the argument but I think helps to clarify Kant's reasoning. I take it to follow uncontroversially, since it is uncontroversial that our a priori intuition of space is an intuition of something, and if it is not an intuition of something mind-independent, then it is an intuition of something, a space, that is mind-dependent. I also hold that the conclusion 6) follows directly from 5). If space lacks the property of being mind-independent then it trivially follows that space is exclusively mind-dependent, meaning that it is mind-dependent and not also mind-independent. Thus, any plausible version of the Neglected Alternative must focus on 2) and 4), and these are exactly the claims I have worked to defend in this chapter.

My solution to the Neglected Alternative consists of arguing that Kant is justified in asserting 2) and 4). Concerning 2), I have argued that it follows from Kant's conception of a priori intuition and that Kant provides strong motivation for accepting his conception of a priori intuition. In defense of 4), I have discussed various hypotheses on which space could be considered both mind-dependent and mind-independent. Specifically I discussed these four

hypotheses:

- (a) Some properties of space are caused by mind-independent things in themselves.⁴⁸
- (b) Space exists as two completely separate structures, one mind-dependent and one mind-independent.⁴⁹
- (c) There exist two different kinds of space: mental space and physical space.⁵⁰
- (d) Space has two aspects: one is a mind-dependent structure and one is a mind-independent structure.⁵¹

Though my specific arguments have varied, I have argued that Kant is able to eliminate each of these hypotheses. I maintain that these hypotheses exhaust the reasonable interpretations of the claim that space is both mind-dependent and mind-independent. Therefore, Kant has sufficient justification for the fourth premise, as well.

It is important to emphasize that my interpretation and defense does not contravene Kant's claim that we cannot know the nature of mind-independent things in themselves. The unknowability of things in themselves is emphasized throughout the *Critique* including in the Aesthetic. For example, Kant states that "[w]hat may be the case with objects in themselves and abstracted from all this receptivity of our sensibility remains entirely unknown to us" (A42/B59). If Kant demonstrates that space is not something that pertains to things in themselves, then does he not violate his professed agnosticism? The answer is no; Kant's Argument for the Exclusive Mind-Dependence of Space does not tell us anything substantive about the nature of things in themselves. Things in themselves could exist in any number of structures *including* one that has

48 Section 4.2. above.

49 Section 4.3., p. 144-150 above.

50 Section 4.3., p. 150-152 above.

51 Section 4.3., p. 152-155 above.

all of the same structural properties as space (being a Euclidean, infinite *totum*). The closest Kant comes to explicitly considering such a possibility is in a passage from the A Paralogisms, where he says that “space itself...is nothing but a representation, whose counterpart in the same quality outside the soul [an hypothesized transcendently real matter] cannot be encountered at all” (A385). Thus, Kant is open to the possibility of a counterpart of space, something that functions *like* space, existing in transcendental reality. What Kant attempts in the Transcendental Aesthetic is to discover the nature of this particular structure in which outer physical objects appear called “space.” By tracing back the origin of our representation of space, he shows that space is something that pertains entirely to our sensibility, a mental faculty. This is a discovery that is purely about our own minds and it does not entail any claims about how things in themselves must be.

Before concluding this section it is worth considering an argument made by Lorne Falkenstein that looks like it directly targets an argument similar to the one I have been developing in this chapter. Falkenstein comes to the conclusion that Kant fails to establish in the Metaphysical Expositions that space is “‘nothing’ outside of our experience.”⁵² He then states the following:

Someone desperate to prove Kant right at all costs might object to this conclusion by stating that perhaps by 'space' Kant just means 'presentation space,' so that, if things in themselves are in some other kind of 'space,' and this space is as radically different from presentation space as I have described, then Kant can be proven wrong only by legislating a wider sense for the term 'space' than he himself intended. Verbal legislation can cut both ways, however. The only proper approach to this issue is to set aside the matter of how to apply labels and consider just how far a 'space' or 'time' in which things in themselves might be supposed to exist might resemble the spatiotemporal forms of intuition. If the answer is 'not at all,' then Kant's strong conclusion that space and time would have to be 'nothing' apart from our intuition is warranted. But, if there are respects in which an order,

⁵² *Kant's Intuitionism*, 305.

in which things in themselves might be supposed to exist, might resemble the spatiotemporal forms of intuition, then *to that extent* Kant's conclusion must be mitigated.⁵³

I will both clarify how my own position differs from the one that Falkenstein attacks in the first half of the above paragraph and explain where I disagree with Falkenstein in his methodological proposal in the second half of the paragraph. First, I do not maintain that Kant *assumes* that “space” refers to a completely mind-dependent structure (like Falkenstein's “presentation space”⁵⁴). I do maintain that Kant uses “space” to refer exclusively to the structure in which we experience objects outside of us, but I also have argued that this use of the word “space” is justified. Thus, I am not engaging in arbitrary “verbal legislation.” It is a serious mistake to dismiss the issue of how Kant uses the word “space,” when we are concerned with the Neglected Alternative objection, because in this context we are judging whether Kant's conclusions about space follow from the premises he provides; in order to understand what these conclusions are and what support Kant provides for them, we must understand what Kant means by his terms, especially “space.” However, it is a completely independent, though also important, issue whether Kant has the resources to eliminate the possibility that things in themselves exist in a structure that is like space (which we might call a “spatial structure” if so inclined). This issue will be exhaustively considered in the next and final chapter.

For now, I want to briefly emphasize a distinct advantage of the interpretation I offer in defense against the Neglected Alternative. My defense is most fundamentally grounded in the resources of the Expositions, and little else, to defend the Argument for the Exclusive Mind-Dependence of Space. When we consider the Neglected Alternative, the best defense of Kant is

53 Ibid.

54 For an explanation of Falkenstein's conception of “presentation space,” see p. 166 below.

one that fully employs the resources of the Expositions, for recall that the claim that space is not mind-independent is presented as an inference or conclusion to be drawn from the previous Expositions. Thus, Kant believes that he has given us the resources to defend the exclusive mind-dependence of space in the Expositions, and I have shown that this is accurate. Therefore, in addition to dispelling the Neglected Alternative with Kantian resources in general, we have done so specifically with the resources that Kant thinks we should use to prove that space is exclusively mind-dependent.

4.5. Alternative Solutions

In this last section, I will consider other potential solutions to the Neglected Alternative that have been proposed in the literature. Here, I will focus specifically on solutions that employ the argumentative resources of the Transcendental Aesthetic; I will consider solutions that focus on other parts of Kant's corpus in the next chapter. My argument will be that the solution I have presented in this chapter should be preferred to any of the other solutions in the literature. By comparing other purported solutions to my own, I will also be able to clarify exactly what my solution is committed to.

I want to first start with a purported solution that I do not think is even ambitious enough to be an adequate solution to the Neglected Alternative. This solution holds that Kant shows either that space is not mind-independent as far as we can know or that the hypothesis that space

is mind-independent is useless. This tactic dates back to an early response to the *Critique* in Jakob's Kantian commentary on Mendelssohn's *Morgenstunden*, which I briefly discussed in the Introduction to this dissertation.⁵⁵ Jakob considers the hypothesis that space corresponds to things in themselves and thus space is also the form of things in themselves. However, he immediately rejects it for being *just* an hypothesis; such hypotheses are of no interest, since the only propositions that matter are ones that are capable of apodictic proof. Therefore, Jakob is content to leave open the possibility that space also belongs to things in themselves, as it is an hypothesis we could never verify or refute.

Recent commentators have continued to endorse this line of argument. For example, Karl Ameriks tries to reconcile the competing interpretations of transcendental idealism from Allison and Guyer by holding that the Aesthetic only sets up a “preference” for transcendental idealism, and the transcendental reality of space is only excluded by the Antinomies.⁵⁶ In addition, Graham Bird's solution to the Neglected Alternative leaves open the possibility that things in the themselves are in space. In his own words, Kant's “position could be expressed by saying that it is not the case, so far as we can tell, that things in themselves are spatiotemporal, rather than that things in themselves are definitely known to be, *not* spatiotemporal.”⁵⁷ Finally, Kenneth Rogerson's own solution maintains that Kant does not rule out the possibility of space also existing completely independently of us from a “God's eye perspective.”⁵⁸

The clear problem with this response is that it ascribes an excessive sort of epistemic humility to Kant that is completely absent in the Transcendental Aesthetic. Kant is very clear that

⁵⁵ See p. 10-11.

⁵⁶ “Kant's Idealism Today,” in *Interpreting Kant's Critiques* (Oxford: Clarendon Press, 2003), 106-7.

⁵⁷ “The Neglected Alternative: Trendelenburg, Fischer, and Kant,” in *A Companion to Kant*, 496.

⁵⁸ “Kant on the Ideality of Space,” *Canadian Journal of Philosophy* 18, (1988), 282.

not only is it the case that space is the form of our appearances but that space is nothing beyond the form of our appearances and that things in themselves do not exist in space. Recall Kant's own characterization of transcendental idealism which holds that space is "nothing as soon as we leave aside the condition of the possibility of all experience, and take it as something that grounds the things in themselves" (A28/B44). In a later discussion in the Aesthetic, Kant maintains that "if we remove our own subject or even only the subjective constitution of the senses in general, then all constitution, all relations of objects in space and time, indeed space and time themselves would disappear, and as appearances they cannot exist in themselves, but only in us" (A42/B59).⁵⁹ A good solution to the Neglected Alternative will be able to make sense of these sorts of comments and explain how Kant reaches the conclusion that space pertains exclusively to the subject and that things in themselves do not exist in space.

The most prominent recent solution to the Neglected Alternative has come from Henry Allison. Explaining and evaluating his solution is complicated by the fact that over the years, he has revised and amended his solution no fewer than three times.⁶⁰ In evaluating Allison's response, it is most helpful to consider a taxonomy of the Neglected Alternative from his most recent discussion of the topic:

In order to assess this objection, it is necessary to specify the nature of the alternative that is supposedly neglected. Three possibilities suggest themselves, which listed in order of

⁵⁹ This passage in particular rebuts Rogerson's claim that Kant limits ontological claims to ones that we can make within in the epistemic conditions of sensibility and understanding. See "Kant on the Ideality of Space," 281-2.

⁶⁰ Allison's initial solution is presented in "The Non-Spatiality of Things in Themselves for Kant," *Journal of the History of Philosophy* 14, (1976): 313-21. It was then further discussed and revised in *Kant's Transcendental Idealism* (New Haven: Yale University Press, 1983), 111-14; *Idealism and Freedom* (New York: Cambridge University Press, 1996), 8-11; and the second edition of *Kant's Transcendental Idealism: Revised and Enlarged Edition* (New Haven: Yale University Press, 2004), 128-32.

decreasing strength are: there is a numerical identity between the space that is a form of sensibility and a space pertaining to things as they are in themselves; these two spaces are qualitatively, though not numerically, identical, that is, they share a common structure; and there is a similarity or analogy, though not an identity, between the two spaces.⁶¹

We will briefly consider Allison's responses to these three possibilities in turn. His response to the strongest possibility, numerical identity between mind-dependent space and mind-independent space, is that it is clearly absurd. By definition, the mind-dependent space and mind-independent space have different properties and so cannot be identical. In response to the second possibility, that there also exists a space qualitatively identical to the space of appearance, Allison argues that this is not in fact possible since an essential qualitative feature of the space that orders appearances is that it is mind-dependent and so nothing that is completely mind-independent could be qualitatively identical to it. Finally, Allison thinks that Kant can even eliminate the possibility that there is any sort of relevant similarity or analogy between space, the structure that order our appearances, and anything mind-independent. Here, Allison defers to an argument by Lorne Falkenstein, so I will wait to evaluate this point until I consider Falkenstein's solution.

Still, I think that Allison misses the mark in his response to the first two possibilities. Allison is right that something mind-dependent cannot be numerically identical to something mind-independent; however, this overlooks a more plausible (though ultimately unsuccessful) version of the Neglected Alternative that we have considered. This version is that the word “space” functions like a concept and can apply to various structures, mind-dependent and mind-

⁶¹ *Kant's Transcendental Idealism: Revised and Enlarged Edition*, 129. This is a further refinement of the distinction between the “strong” and “weak” formulations of the Neglected Alternative in “The Non-Spatiality of Things in Themselves for Kant,” 319-20.

independent. If this hypothesis is right, then these structures denoted by “space” are no more numerically identical than all of the animals that fall under the concept of “cat;” yet each structure would still be space, or have the property of being space. None of Allison's responses address an hypothesis like this. Further, Allison's response to the second possibility is not satisfactory. However, before we can get to that point, we must grapple with an ambiguity in Allison's statement of this possibility. He says that there might be a mind-independent space that is “qualitatively identical” to or “share a common structure” with the space of appearances. These are not obviously equivalent possibilities. Crucially, the properties denoted by “being mind-dependent” and “being mind-independent” are likely qualitative properties but are certainly not structural properties.⁶² Structural properties are ones like “being Euclidean,” “being infinite,” and “being a *totum*” which I have argued can be had by mind-independent structures. Allison's own response rests on the premise that “being mind-dependent” is a relevant qualitative or structural property. But since such a property is not in fact a structural property, his response can only work as a reply to the possibility of a qualitatively identical space, and it fails as a response to the possibility that there is a structurally identical space.

Ultimately, however, these points are irrelevant, because the issue of whether there exists an additional mind-independent structure that is qualitatively identical or structurally identical to space is completely irrelevant to Kant's arguments in the Aesthetic; Kant makes no claims about the possibility or impossibility of such a structure. All he claims is that space itself is something that is completely mind-dependent and that it does not exist as a mind-independent structure. An

⁶² For one characterization of “qualitative properties” on which the aforementioned properties would be qualitative, see Chris Swoyer and Francesco Orilia, “Properties”, *The Stanford Encyclopedia of Philosophy* (Winter 2011 Edition), ed. Edward N. Zalta, URL = <<http://plato.stanford.edu/archives/win2011/entries/properties/>>.

additional structure that is merely qualitatively identical or structurally identical to space *is not space*, and so he commits himself to no claims about such a structure. Thus, the possibility that there is a qualitatively identical or structurally identical mind-independent space is not an alternative that Kant unjustly rules out, because he does not in fact rule it out in his Argument for the Exclusive Mind-Dependence of Space. It is also not a relevant alternative that Kant overlooks, because Kant is conducting an investigation specifically into what space is. The existence of a qualitatively identical or structurally identical mind-independent structure that is not space (that is not numerically identical to space) has no bearing on such an investigation. The bottom line, then, is that Kant's Argument for the Exclusive Mind-Dependence of Space is completely silent on the possibility of a qualitatively identical or structurally identical mind-independent structure, and this is in no way a defect in Kant's argumentation.⁶³

Before considering Falkenstein's response to the Neglected Alternative, from which Allison borrows to address his third possibility, I will briefly consider another commentator who provides a response somewhat similar to Allison's own response: Tobias Rosefeldt. Rosefeldt argues that in the Aesthetic, Kant endeavors to show that all spatial predicates express properties that have an essential reference to a cognizing subject. For example, the property expressed by "is round" is identical to the property expressed by "appears round to epistemic subjects with our forms of intuition."⁶⁴ If all instantiations of spatial properties involve a necessary relation to a cognizing subject, then it does not make sense to ask if things in themselves, i.e. objects

63 The only qualification we must make is that if Allison is right that "being mind-dependent" and "being mind-independent" are qualitative properties, then this does eliminate the possibility of a mind-independent structure qualitatively identical to space. Still, we can imagine a mind-independent structure that is Euclidean, infinite, and a *totum*; Kant says nothing about such a structure, nor should he.

64 "Subject-Dependence and Trendelenburg's Gap," in *Akten des XI. Internationalen Kant-Kongresses*, ed. Stefano Bacin et al. (Berlin: Walter de Gruyter, 2013), 748.

considered apart from all cognizing subjects, could have spatial properties. Thus, the Neglected Alternative objection is incoherent. I think that Rosefeldt's point about the essential relativization in spatial properties may very well be correct, but it is an ineffective point in a reply to the Neglected Alternative. The Aesthetic is not concerned with the nature of particular spatial predicates but rather with the nature of the entire structure, space. By appealing to features of our cognition of space as well as structural properties had by space, Kant shows that space itself is something mind-dependent. As I have shown above, this is the argument in the Aesthetic that rules out the Neglected Alternative. This argument may also entail that particular spatial predicates express mind-dependent properties, but this would be a consequence of the argument that rules out the Neglected Alternative; it is not itself an independent point that shows the falsity of the Neglected Alternative objection.

We turn now to Lorne Falkenstein's solution that was mentioned earlier. Falkenstein addresses the Neglected Alternative in both his article "Kant's Argument for the Non-Spatiotemporality of Things in Themselves" and in his commentary on the Transcendental Aesthetic, *Kant's Intuitionism*. Though in his earlier article he thinks that Kant's claims about the non-spatiality of things in themselves follow from the premises in the Expositions, he reverses this judgment in the commentary and claims that Kant draws a conclusion that he does not support in the Aesthetic.⁶⁵ In both works, Falkenstein thinks that Kant can conclude that if things in themselves are in space, then the spatial features of our own experience are not caused by this mind-independent space and that this mind-independent space must be of a radically different nature from the space of our experience. The heart of Falkenstein's defense of Kant against the

⁶⁵ "Kant's Argument for the Non-Spatiotemporality of Things in Themselves," 282-3; *Kant's Intuitionism*, 306.

Neglected Alternative relies on the claim that space is what Falkenstein calls a “presentational order.” To say that space is a presentational order means that the structure of space necessarily makes reference to a particular standpoint to which objects are presented. In virtue of making reference to a particular standpoint, objects have spatial properties like “being to the left of,” “being above,” etc. However, things in themselves necessarily do not make reference to a particular standpoint and therefore lack such properties. Thus, Falkenstein asks “What could it mean, in a transcendently real world, for one thing in itself to be on the left of another?”⁶⁶ Since we cannot make sense of such predicates belonging to completely mind-independent objects, these objects cannot exist in a presentational order and so cannot exist in the same sort of structure that is the space we experience.⁶⁷

One issue is that it is not even clear that this line of thought is able to defeat the Neglected Alternative and give Kant his conclusion that space is not mind-independent (as evidenced by Falkenstein’s differing judgments in his works). But even if we grant that Falkenstein’s argument leads to the conclusion that space is not mind-independent, I do not think it is satisfactory; it is not evident that observer-dependent spatial properties like “being to the left of” are ones that are essential to Kant's conception of space in the *Critique*. Nowhere in the

66 “Kant's Argument for the Non-Spatiotemporality of Things in Themselves,” 276. This argument sounds somewhat similar to Rosefeldt's defense of Kant against the Neglected Alternative. It is importantly different, though, in that Falkenstein argues that some obviously cognizer-dependent properties are essential to Kant's conception of space, whereas Rosefeldt argues that a central feature of Kant's view of space is that all spatial properties, whether they have the surface grammar of a cognizer-dependent property or not, are in fact cognizer-dependent properties.

67 Falkenstein’s article and commentary diverge on what conclusion to draw from this point. In the article, Falkenstein concludes that this shows that the Neglected Alternative fails; in the commentary, he thinks that Kant makes the stronger claim that things in themselves could not exist in a space of *any* sort, and this claim is undermined by the possibility of orders other than presentational orders.

Expositions does Kant talk about these sorts of properties or imply that they are fundamental spatial relations.⁶⁸ It may very well be the case that (e.g.) B exists between A and C in space, *because* B is presented to me as between A and C, but this by no means entails that in transcendental reality, B could not have the property of being between A and C. In other words, how objects are presented can play an essential role in the story of our spatial cognition without making observer-dependent properties part of what space is. As I have argued in my own solution, properties like being Euclidean, infinite, and a *totum* are essential to Kant's conception of space as presented in the Aesthetic. And since my defense against the Neglected Alternative recognizes these features and makes no tenuous assertions about additional features of space, this is a strong point in favor of my defense.⁶⁹

Returning for a moment to Allison's solution, Allison employs Falkenstein's response to eliminate the weakest form of the Neglected Alternative – that there exists a structure that is merely similar or analogous to the space we experience. Allison holds that Falkenstein's defense shows that it is impossible for there even to be a relevant analogy or similarity between space and a transcendently real structure. However, I have argued that Falkenstein's defense is inadequate, so we must consider what Kant should say about such a possibility. His response should look much like how I have suggested he should respond to the possibility that there is a qualitatively identical or structurally identical space in mind-independent reality. I think it is

68 In an earlier essay, "Concerning the Ultimate Ground of the Differentiation of Directions in Space" (Ak. 2:375-83), Kant does emphasize the importance of observer-dependent spatial properties, but no glimpse of this discussion is found in the Aesthetic or *Critique* in general. The first Exposition does emphasize the necessity of the representation of space for a subject to perceive an object distinct from herself, but it would be a stretch to infer from this that observer-dependent properties are fundamental properties of space.

69 Cf. the criticism of Falkenstein in Herissone-Kelly, "The Transcendental Ideality of Space and the Neglected Alternative," 277-81.

clear that nothing Kant says in the main argument of the Aesthetic rules out the possibility that there is a mind-independent structure that is in some way analogous or similar to space. Further, Kant has no reason to rule out this possibility as it has no bearing on the nature of space. Kant's silence on this topic is completely warranted.

I end this section with three philosophers whom I think have presented solutions to the Neglected Alternative that are very much on the right track. First, Hermann Cohen's discussion of the Neglected Alternative in *Kant's Theorie der Erfahrung* (1871) contains an astute presentation of the flaws in Trendelenburg's argument for the Neglected Alternative. In addition to presenting a close reading and criticism of key passages in Trendelenburg, Cohen provides a nice diagnosis of Trendelenburg's position: Trendelenburg confuses the concepts of “space” and “spatiality.”⁷⁰ This explains why Trendelenburg treats the term “space” like a concept that could apply to multiple structures, as “spatiality” is most naturally understood in this way. But Kant does not and should not conflate these terms, and this is a point we must recognize when we evaluate Kant's own argument.

Two more recent philosophers with whom I am in significant agreement are Marcus Willaschek and Patricia Kitcher. In his article, “Der transzendente Idealismus und die Idealität von Raum und Zeit. Eine 'lückenlose' Interpretation von Kants Beweis in der 'Transzendentalen Ästhetik,’” Willaschek does not face the Neglected Alternative objection directly but rather reconstructs Kant's main argument in the Aesthetic in order to show that there is no relevant alternative that Kant neglects. Willaschek recognizes the crucial point that space is what our representation of space refers to and that the fact that our a priori intuitions cannot refer to

⁷⁰ *Kants Theorie der Erfahrung*, 78.

anything mind-independent means that space is not mind-independent.⁷¹ He also endorses a conclusion that I have emphasized in my defense against the Neglected Alternative: “Even if there should be something independent of our 'mind' to which all of the general characteristics of space applied (three-dimensionality, homogeneity, infinity, etc.), it would not be *space*, provided we understand it as the object of *our* representation of space.”⁷² My quibbles with Willaschek's account are minor, and my own argument in this dissertation builds on and expands both Willaschek's interpretation of a priori intuition and his response to the Neglected Alternative.

Finally, Patricia Kitcher's defense against the Neglected Alternative agrees with my interpretation in an important way.⁷³ Kitcher recognizes the important connection between the terms “representation of space” and “space” for Kant; since Kant has the resources to show that the representation of space cannot be caused by anything outside of the subject, it follows that our representation of space cannot refer to anything in transcendental reality. However, Kitcher frames this argument as being purely epistemic rather than metaphysical.⁷⁴ The implication is that Trendelenburg's criticisms are misguided, because Kant is not making any substantive metaphysical claims about the nature of space. As I have argued this point is not correct; though certainly Kant's argument relies on the epistemology of space, he draws metaphysical conclusions about the nature of space itself. Further, I have argued that he is also able to justify these metaphysical conclusions.

71 See ft. 35 in the first chapter for my agreement with Willaschek about a priori intuition.

72 “Eine 'lückenlose' Interpretation,” 555.

73 “The Trendelenburg Objection; A Century of Misunderstanding Kant's Rejection of Metaphysics,” *Akten des IX. Internationalen Kant-Kongresses 2*, Sektion IV (2001): 599-608.

74 Cf. Arthur Melnick, *Space, Time, and Thought in Kant* (Dordrecht: Kluwer, 1989), 530.

4.6. Conclusion

This concludes my defense of Kant against the Neglected Alternative. I have focused on Kant's main argument in the Transcendental Aesthetic and have argued that the steps in his Argument for the Exclusive Mind-Dependence of Space are justified, and thus Kant is able to establish that space is completely mind-dependent. There is one big issue that I have yet to cover, however. Consider Allison's two weakest versions of the Neglected Alternative: (1) that there could exist a mind-independent structure that is qualitatively identical or structurally identical to space and (2) that there could exist a mind-independent structure that is similar or analogous to space. I have argued that Kant does not eliminate these possibilities in his Argument for the Exclusive Mind-Dependence of Space and that this is absolutely no problem for the argument. However, when we look beyond the pages in the Aesthetic where this argument occurs, it is not so clear that Kant leaves these as open possibilities. Kant may give other arguments that place restrictions on how things in themselves might be structured. In the next, and final, chapter we will consider the question of the extent to which transcendental reality could have a structure that is like space. This will require moving out of the Aesthetic and considering arguments from Kant's entire Critical corpus.

*Chapter 5**The Structure of Transcendental Reality*

In my solution to the Neglected Alternative in the last chapter, one key assertion I made is that Kant does not commit himself to any claims about how things in themselves must or must not be structured, at least in the main argument of the Transcendental Aesthetic. This is as we should expect, since Kant is usually very clear that we cannot know anything about the nature of things in themselves. However, in some previous discussions of the Neglected Alternative, commentators have looked to passages in which Kant seems to give arguments that rule out the possibility of a structure like space or time existing in transcendental reality. My goal in this chapter is to assess these arguments and determine what, if any, restrictions Kant's Critical philosophy places on how things in themselves could be structured.

This investigation is important for at least two reasons. First, despite his frequent profession of ignorance about the nature of things in themselves, Kant places surprisingly stringent restrictions on how things in themselves could be. It is worth making these restrictions explicit and trying to integrate them as best we can into the rest of Kant's Critical philosophy. More directly related to the Neglected Alternative, Kant's restrictions on the nature of things in themselves may provide further ammunition for a Kantian reply to Trendelenburg. We have already presented an adequate response to Trendelenburg in the last chapter by showing how Kant's argument in the Transcendental Aesthetic entails that space is completely mind-dependent. But the arguments I consider in this chapter may provide Kant with the resources for an even stronger case. Kant's argument in the Aesthetic leaves open the possibility that even though space

is completely mind-dependent, there is something structurally-similar to space in transcendental reality. What this means is that Kant leaves open the possibility that the ultimate ontology of the mind-independent world is *like* the one Trendelenburg describes.¹ If the arguments from Kant that I consider in this chapter are successful, then Kant can close this possibility and deny the ontology of mind-independent reality that Trendelenburg endorses. More generally, Kant would be able to show not only that space is completely mind-dependent but that there is nothing mind-independent that even has the same sort of structural properties had by space. However, in the end, I will hold that none of the arguments in this chapter should be the focus of a solution to the Neglected Alternative, as they face problems both with respect to the quality of argumentation that Kant provides, as well as with respect to their epistemic statuses within Kant's system. Though it is very clear that Kant, for various reasons, asserts that mind-independent reality is not at all similar to space or time, these arguments at best provide an optional supplement to the solution to the Neglected Alternative I presented in the previous chapter.

In the first section I will consider an argument from a brief passage in the *Prolegomena* that has sometimes been thought to be the one place where Kant directly considers the Neglected Alternative objection and dismisses it; further, it has been held that in this passage Kant rejects the possibility that there is anything transcendently real that is even *similar* to space. I argue, on the contrary, that this passage presents little that would help Kant respond to the Neglected Alternative charge and that the passage does not have any implications for how things in themselves may be structured.

¹ It is important to reiterate that Kant also provides argument for accepting an epistemology on which the space we access through a priori intuition is completely mind-dependent. Thus, even if Kant leaves open an ontology like Trendelenburg's, he in no way leaves open a Trendelenburgian epistemology. See chp. 4, 120ff.

In the second and third sections, I consider two aspects of Kant's practical philosophy that do in fact place restrictions on how things in themselves could be structured. First, I discuss Kant's arguments concerning the connection between God and transcendental idealism, and I will argue that Kant's conception of God eliminates the possibility of any transcendently real structures that are infinite, or more specifically, limitless. Second, I discuss Kant's view of the connection between human freedom and transcendental idealism. The upshot of this connection is that transcendently real structures cannot necessitate that things in themselves act in accordance with any law; instead for a transcendently real subject to be free, this subject must contain the ground for their own actions.

In the fourth section, I consider a family of arguments that fall squarely in Kant's theoretical philosophy that if successful would place substantial restrictions on the structure of things in themselves. These are Kant's arguments concerning the nature of infinite divisibility, which purport to establish that things in themselves are mereological simples or composed of simples. In addition to evaluating the content of these arguments, we will also need to carefully consider the precarious epistemic status of these arguments in Kant's theoretical philosophy.

In the fifth section, I consider Jill Buroker's attempt to resolve the Neglected Alternative, which appeals to Kant's theoretical claims about the structure of things in themselves, especially the nature of their relations. Here we will consider Kant's claim that the relations between things in themselves are reducible to the inner properties of things in themselves. Though I will argue that Kant does indeed endorse this claim, the fact that he provides very little support for it should discourage us from building a solution to the Neglected Alternative around it.

In the last section I compile the arguments from the previous sections and add one final element to Kant's view of transcendental reality – that God's omnipresence functions as an analogue to space among things in themselves. I then briefly argue that we should not supplement the solution to the Neglected Alternative from the previous chapter with any of Kant's arguments concerning transcendental reality considered in this chapter.

5.1. The “Cinnabar” Passage and Similarity

There is a short passage in the *Prolegomena* that has sometimes been thought to be the place where Kant tackles the Neglected Alternative head on.² This passage occurs in one of Kant's discussions of idealism, after he explains that he considers both Lockean primary and secondary qualities to be completely mind-dependent elements of appearance.

I would very much like to know how then my claims must be framed so as not to contain any idealism. Without doubt I would have to say: that the representation of space not only is perfectly in accordance with the relation that our sensibility has to objects, for I have said that, but that it is even fully similar [ähnlich] to the object; an assertion to which I can attach no sense, any more than to the assertion that the sensation of red is similar to the property of cinnabar that excites this sensation in me (Ak 4: 289-90).

The key claim in this passage is that it is nonsensical for our representation of space to be similar

2 See especially Hermann Cohen, *Kants Theorie der Erfahrung*, 73 and Sandra Shapshay, “Did Schopenhauer Neglect the 'Neglected Alternative' Objection?” *Archiv für Geschichte der Philosophie* 93, (2011), 326-7. Cf. Allison, “The Non-Spatiality of Things in Themselves for Kant,” 320n; Edward Caird, *The Critical Philosophy of Immanuel Kant* (Glasgow: Maclehose & Sons, 1889), 307; and Hartmann, *Kritische Grundlegung des transcendentalen Realismus*, 103.

to the objects that cause our empirical intuitions, which when we look at the wider context of the passage, we see are things in themselves. This point would seem to eliminate two possibilities: 1) that in addition to the space that our representation of space grounds in our experience there is a mind-independent space and 2) that there is something mind-independent that is merely similar to how we represent space. But how can Kant arrive at such bold conclusions so quickly? To help answer this, Sandra Shapshay provides a helpful reconstruction of Kant's reasoning in the above passage.

- 1) Properties that belong to a representation in virtue of its character as representation cannot logically be similar to the properties in the object which excite the representation.
- 2) Spatiotemporal form is a property of representations in virtue of their representational character.
- 3) Thus, things as they are in themselves must be aspatiotemporal.³

The first premise is the key premise, and Shapshay asserts that it is identical to a principle put forth by Berkeley: that “an idea can be like nothing but an idea.”⁴ However, the senses of the terms “likeness” and “similarity” for both Berkeley and Kant are not at all obvious. To understand what Kant means, we need to take a closer look at the context in which Kant presents this passage and then think carefully about the example of cinnabar that he uses.

Prior to the passage, Kant's primary goal is to rebut the charge that his system is

3 “Did Schopenhauer Neglected the 'Neglected Alternative' Objection?”, 327.

4 *A Treatise Concerning the Principles of Human Knowledge*, ed. R.S. Woolhouse (New York: Penguin Books, 1988), Part I section 8 (originally published in 1710). In the end, I think it is likely that Kant is not employing Berkeley's likeness principle, since Berkeley supports this principle primarily by appeal to our inability to compare ideas to anything else. Kant's example of cinnabar and our representation of redness suggests that he is talking about two kinds of things that we are in fact able to compare. For a recent discussion of Berkeley on similarity and ideas, see Todd Ryan, “A New Account of Berkeley's Likeness Principle,” *British Journal for the History of Philosophy* 14, (2006): 561-80.

idealistic. Specifically, Kant worries that his claim that all bodies along with space are merely representations in us may be interpreted as idealism. Kant's reply, in broad strokes, is that the objects that excite our sensibility are real and have an existence in themselves, but this does not mean that all of the predicates we ascribe to such objects belong to objects in themselves. Rather, all such predicates, be they Lockean primary or secondary qualities, belong merely to the appearance of the thing in itself, and therefore these predicates are a result of the constitution of our minds.

With this context in mind, Kant's example of cinnabar (mercury ore) at the end of the passage can help us figure out the sense in which he thinks our representation of space cannot be similar to things in themselves. Kant says that there is an incoherence in holding that our sensation of red is similar to the cause of this sensation in a sample of cinnabar. Here, we need to bracket transcendental idealism for a moment and consider cinnabar and our representation of redness more “pre-philosophically.”⁵ The essential difference between cinnabar and our representation of redness caused by the cinnabar is that the representation of redness is something that exists in our minds and is entirely mind-dependent, whereas the aspect of the cinnabar that causes me to see it as red is a part of the completely mind-independent physical world.⁶ In short, our representation of redness and the cinnabar that “excites” the representation are completely dissimilar, because they are completely different kinds of things ontologically.

We are now ready to return to Kant's point concerning the dissimilarity between the representation of space and the mind-independent causes of the objects we experience in space.

We can boil Kant's argument down to this: the space grounded by our representation of space is

5 On Kant's terminology, we are viewing them at the empirical rather than transcendental level.

6 Kant is sometimes happy to talk about the distinction between appearances and things in themselves *within* the phenomenal world. See his “rainbow” example at A45-6/B62-3.

completely mind-dependent; something completely mind-dependent cannot be similar (i.e. the same kind of thing ontologically) to anything mind-independent; therefore nothing mind-independent can be similar to space. This argument might seem weak, since the second premise is trivial, but consider that we are just filling in the details of why Kant simply asserts that it would be absurd for our representation of space to be similar to something mind independent; the text does not support anything more than a short and fairly obvious argument.

It is thus essential to note that the sense of “similarity” in play in the *Prolegomena* is completely different from the sense that we are interested in, when we ask if there could be something mind-independent similar to space in the context of the Neglected Alternative.⁷ When we ask this question, what concerns us is something that we might call “structural similarity.” Could there exist a mind-independent structure that has identical or nearly identical structural properties to space, the structure that orders outer appearances for us? To answer this question, we need to figure out if something mind-independent could have properties like being Euclidean, infinite, and a *totum*. Kant's comments in this passage from the *Prolegomena* shed absolutely no light on this question. In general, this passage would be of no help for resolving the issues raised by the Neglected Alternative. Consider Trendelenburg's view on which “space” functions like a concept and applies to a structure in virtue of that structure having certain structural properties. The fact that space as we represent it is a completely different kind of thing ontologically from a purported mind-independent space does not rule out a structural similarity between the two and thus leaves open the possibility that there really is a mind-independent space, if Trendelenburg's hypothesis were accurate.

Having shown that this passage is of little interest for the Neglected Alternative or the

7 Contra Henry Allison, “The Non-Spatiality of Things in Themselves for Kant,” 319-20.

question of how transcendently real objects could be structured, we can move on to other passages that do have relevance. However, given that this particular passage has been thought to be important for the Neglected Alternative and I have denied this, what then is the point of the passage? As I stated earlier, Kant's purpose is to refute the claim that his system amounts to a straightforward idealism, where idealism is understood as the view that "there are none other than thinking beings" (Ak. 4:288-9). He goes on to argue that there exist mind-independent objects with which thinking beings interact. It is just that the properties that we ascribe to these objects are ones that are given to the object by thinking beings and do not come from the objects in themselves. At the end of this section, where Kant presents the quoted paragraph of above, he states that his critics who want a system even further from idealism are asking for something that is patently false. Kant's critics want him to hold that space is the same kind of thing (ontologically) as the objects that affect our sensibility. However, Kant has demonstrated that space comes from our sensibility and the objects we experience originate outside of our sensibility. Therefore, space and the objects that cause our experience are two completely different kinds of things, in the same way that we naturally think of our representation of redness as a completely different kind of thing from the property of cinnabar that causes us to have this representation.

5.2. First Practical Argument: God

In the next two sections, we will consider two sets of arguments that purport to justify transcendental idealism by appeal to features of Kant's practical philosophy. Though we will have to look beyond the first *Critique* to fully see the arguments, these connections between practical philosophy and transcendental idealism are very much rooted in the actual argument of the *Critique*. In fact one such connection is made in the Transcendental Aesthetic itself; this is the connection between the nature of God and the ideality of space and time. This issue recurs throughout Kant's lectures on metaphysics and religion and in his *Nachlass*. The target of Kant's argument also seems to shift, but in making the connection between God and transcendental idealism, one important target is the danger of Spinozism and Mendelssohn's attempt to avoid it. In general, this topic is of great interest for understanding Kant's religious and ethical views, but for our purposes it is most important to determine what if anything these arguments tell us about the possible structures of things in themselves.

However, before jumping into this connection and Kant's arguments, we must note that they occupy a somewhat uneasy place in Kant's Critical philosophy. The arguments do not fit directly into the conception of theoretical philosophy set out at the beginning of the first *Critique*. Kant's goal is to develop a system of philosophy that has apodictic certainty, but at no point does this system prove the existence of God, and so Kant cannot use the existence of God to establish transcendental idealism within his theoretical philosophy.⁸ Rather, transcendental idealism needs to be established completely independently of any theological premises, and I

8 One small qualification: Kant does think that there is one theoretical argument for the existence of God that cannot be refuted in his theoretical philosophy. This argument can be used to support belief in the existence of God, though it cannot give us knowledge of God's existence. It was first presented in "The Only Possible Basis of a Demonstration of the Existence of God" (Ak. 2:65-164) and returns in his Critical writings. See Andrew Chignell, "Kant, Real Possibility, and the Threat of Spinoza," *Mind* 121, (2012): 635-75. For more on the role of belief in Kant's philosophy, see p. 204 below.

have argued that it is established through Kant's Argument for the Exclusive Mind-Dependence of Space in the Aesthetic. For this reason, these theological arguments cannot be used to provide an independent defense against the Neglected Alternative. Still, Kant makes room for God, but it is in his practical philosophy. In the *Critique of Practical Reason*, Kant argues that God is a “postulate” of practical reason that is necessary to establish that the happiness of humans is ultimately proportional to their morality (Ak. 5:144-7). Granting that we view Kant's system as encompassing both theoretical and practical aspects, we can consider these theological arguments as showing how Kant's practical and theoretical philosophy cohere and reinforce each other.

The link between transcendental idealism and God is first made in Kant's Critical philosophy at the very end of the B edition of the Transcendental Aesthetic in the fourth section under the heading “General remarks on the transcendental aesthetic.”

In natural theology, where one conceives of an object that is not only not an object of intuition for us but cannot even be an object of sensible intuition for itself, one is careful to remove the conditions of time and space from all of its intuition (for all of its cognition must be intuition and not thinking, which is always proof of limitations). But with what right can one do this if one has antecedently made both of these into forms of things in themselves, and indeed ones that, as a priori conditions of the existence of things, would remain even if one removed the things themselves? – for as conditions of all existence in general they would also have to be conditions of the existence of God. If one will not make them into objective forms of all things, then no alternative remains but to make them into subjective forms of our kind of outer as well as inner intuition... (B71-2).

The argument in this passage does not refer back to any points made in the Aesthetic and thus seems to be a completely free-standing argument for transcendental idealism. We can view the argument as a proceeding in the form of a *modus tollens*.

- 1) If space and time were forms of things in themselves (objective forms), then they would be conditions for the existence of God.
- 2) Space and time are not conditions for the existence of God.
- 3) So, space and time are not forms of things in themselves (objective forms).

The second premise can be discussed very briefly, as it is easy to see why Kant would hold it.

God is understood to be something that is not limited and certainly not limited by anything that exists outside of God. Therefore, space and time cannot be conditions for God's existence. This premise would have been uncontroversial for nearly any theistic philosopher in medieval and modern philosophy until the time of Kant.⁹

The first premise is more difficult. At first glance, we might think that the premise is too strong, as it rules out plausible alternative views of space. For example, it rules out the hypothesis that space and time order just *some* kinds of things in themselves. However, it is very clear that Kant commits himself to this premise and holds that there are only two possible ways space and time could be. Note that he says that “if one will not make them [space and time] into objective forms of all things, then *no alternative remains* but to make them into subjective forms of our kind of outer as well as inner intuition” (B72, my emphasis). Thus, Kant thinks there are exactly two alternatives, and the alternative on which space and time have an existence in which they order things in themselves is one in which they order “all things.” This exclusive choice cannot be written off as mere sloppiness on Kant's part. Very similar argumentation is found elsewhere in Kant's corpus, including the *Critique of Practical Reason* and his lectures. In fact, in the second *Critique*, Kant explicitly raises and rejects a seemingly plausible intermediate hypothesis proposed by Mendelssohn: that space and time only belong to finite things in

⁹ For example, consider Leibniz's accusation in the first letter to Clarke that the Newtonians hold that God depends on space for perceiving objects and Clarke's attempt to deny this claim.

themselves and not to God. Kant's response is that such a division would be completely without warrant (Ak. 5:101).¹⁰

Having established that Kant is indeed committed to the first premise, we must ask *why* he thinks that these are the only two alternatives. In other words, why is it entailed by space and time being objective forms that they are forms for *all* things in themselves? There is one clear answer that Kant gives, and it appeals to an essential property of space and time that we have discussed: the infinitude of these structures. This comes out in two very similar arguments made in Kant's lectures and notes:

If I assume space to be a being in itself, then Spinozism is irrefutable, i.e., the parts of the world are parts of the divinity. Space is the divinity; it is united, all-present, nothing can be thought outside of it; everything is in it (Ak. 28:567).

Indeed, were space and time constitutions of the things in themselves, then they would have to be properties of God. For space is unbounded, the duration of time is also without bounds. Space and time agree; both are necessary with respect to the existence of all things. They are all-encompassing in view of all objects that they contain entirely in themselves (Ak. 29:977).

Further, space and time are such necessary a priori determinations of the existence of things that they together with all the consequences dependent upon them would not only have to be ~~the restrictedness~~ conditions of ~~God~~ the existence of the deity, but would also, on account of their infinity and absolute necessity, have to be made into divine properties were they determinations of things in themselves. For if one were once to make them into such determinations then there would be no reason why they should be limited merely to finite beings...theology leads to the aesthetic critique (R6317; Ak. 18:626-7).¹¹

The idea is that the infinite nature of space and time is understood in terms of an unboundedness

10 For Kant's discussion of Mendelssohn's hypothesis see Hogan, "Three Kinds of Rationalism," 373-4 and Kimberly Brewer and Eric Watkins, "A Difficulty Still Awaits: Kant, Spinoza, and the Threat of Theological Determinism," *Kant-Studien* 103, (2012): 169-70.

11 The first quotation is from *Metaphysik L₂*, estimated to have been given around 1790-1. The second is from *Metaphysik Vigilantius (K₃)*, estimated between 1794-5. The third quotation is from a note estimated to be between 1790-1 (following the Akademie and Cambridge editions, I have included Kant's strikethroughs). See also R6285 (Ak. 18:552-3).

or unlimitedness. If space and time existed in transcendental reality, then they would be limited or bounded, if it were also the case that God existed outside space and time. This point eliminates the Mendelssohnian hypothesis that space orders just some (the finite) things in themselves.¹² Thus, the only solution is transcendental idealism in which we place space and time in the completely separate domain of appearances.

There is another, more difficult question, we can ask about Kant's first premise: why does Kant think that if God exists in space and time, then space and time are conditions for God. In other words, why is it not possible for God to exist in space and time while it not being the case that space and time provide a condition for God's existence? Kant very clearly commits himself to this assumption in the passage at B71-2 quoted above, when he says that if we made space and time into transcendently real structures, they would be "conditions of all existence in general" and "would also have to be conditions of the existence of God." This assumption indeed seems necessary for the success of Kant's argument, but the assumption is neither explicitly explained anywhere in the Aesthetic nor in the other places where Kant presents his theological arguments for transcendental idealism. Nevertheless, I think we can discern Kant's motivation for accepting this assumption, though it is unlikely to be satisfactory to someone who doubts the assumption. Kant holds that space and time act as what we might call "ontological categories" for a domain of objects.¹³ What this means is that space and time each constitute a structure that necessarily

12 There is perhaps another reason Kant cannot accept the Mendelssohnian hypothesis. Based on Kant's discussion of this hypothesis in the second *Critique*, Brewer and Watkins argue that Kant rejects it, because God is unable to create space and time. God cannot create them, because in order to create space and time God would need to represent them, and in order to represent them, he would need to be an imperfect creature with a passive and receptive faculty (i.e. sensibility). Therefore, the creation of space and time must be relegated to finite creatures like us. See "A Difficulty Still Awaits," 169-72.

13 I borrow this particular use of the term "ontological category" from Hogan, "Three Kinds of Rationalism," 373.

applies to and conditions all objects in a particular domain. Thus, if they belong to things in themselves, then they provide a structure and condition for all things in themselves.

The skeptical reader may still very justifiably ask: why should space and time be considered ontological categories? The best answer that I think Kant can give is that it seems to follow from a conceptual analysis of what space and time are. The *Metaphysical Expositions* provide, in part, a conceptual analysis of these terms, and one key claim is that space and time are necessary representations. Kant moves from the fact that we are unable to have a representation of a lack of space or time to the claim that space and time are conditions for the objects that appear to us; in other words, they are ontological categories for the domain of appearances. As it turns out, the objects that appear to us constitute a completely closed domain of mind-dependent objects. However, if instead space and time ordered objects that had a transcendentally real existence, space and time would be ontological categories for the domain of things in themselves. This is not at all a knock-down argument for the conclusion that space and time are ontological categories for whatever domain they occupy, but it may provide some insight into why Kant thinks that space and time would necessarily provide a condition for God in the scenario where space and time order things in themselves.

At this point, it is at least clear why Kant accepts the controversial first premise of the theological argument found in the *Aesthetic*. My purpose here is not so much as to evaluate the argument but as to figure out what implications it has for the possible structures of things in themselves. Our discussion of this argument has revealed that Kant introduces one clear restriction on the structure of things in themselves: things in themselves cannot be ordered in an infinite structure that conditions the existence of the objects it structures. This is because such a

structure would have to order God and thus place restrictions on God. One natural concern that arises is with Kant's use of "infinity" in these arguments. Simply put, contemporary treatments of infinity can make Kant's concerns about infinity and God look completely illegitimate. For example, it seems coherent to describe transcendental reality in such a way that there exists as many distinct non-divine things in themselves as there are natural numbers and also posit that there exists a structure that orders all of these non-divine things in themselves and no others. Such a structure could rightly be described as infinite and unbounded, without including any divine being in its ordering.

Therefore, it would be helpful to redescribe Kant's argument, and I will choose the following definition of the term "limitless" to formulate it.

A structure *S* is *limitless* if and only if *S* orders all objects in the ontological domain in which *S* exists.

Kant seems to recognize just three ontological domains: the domains of inner and outer appearances and the domain of transcendental reality.¹⁴ Kant thinks that space and time have the property of being limitless, and since God is a transcendently real being, God would have to exist in space and time, were space and time transcendently real, and this would endanger the independence of God.¹⁵ More will be said in the next section on the specific way in which space

14 One might try to save the compatibility of God and transcendently real space and time by arguing that God is in its own ontological domain in virtue of being a divine being and having the most reality. Though Kant does accept that God is more real than finite beings, Kant denies this strategy and places God and finite things in themselves in the same ontological category. Recall that he says that the scenario in which space and time order just finite things in themselves and not God would be "completely without warrant" (Ak. 5:101).

15 It is interesting to note that the Trendelenburg's alternative conception of the infinitude of space and time would not avoid the problems Kant worries about in this section. According to Trendelenburg, space and time are infinite, because they emanate from the unbounded activity of motion (*Logische Untersuchungen*, 167-8). The unboundedness of motion would result in

and time condition the objects they structure, when we consider Kant's claim that space and time pose a danger for human freedom. Additionally, at the end of this chapter, we will return to Kant's view on the positive role that God plays in mediating interaction between things in themselves.

We will conclude this section with a worry about Kant's theology that naturally follows from the previous discussion. How does Kant really end up avoiding Spinozism? We have seen that he holds that the threat of Spinozism should motivate us to accept transcendental idealism, but at the same time Kant maintains that God is completely limitless and unbounded, so how is it that all things in themselves can be substances and do not simply become parts or aspects of God? To answer this, we must first recognize that Kant maintains that things in themselves are created by God and dependent on God for their reality. In the second *Critique*, Kant identifies the claim that God “is the cause...of the existence of substance” as “a proposition that can never be given up without also giving up the concept of God as the being of all beings and with it his all-sufficiency, on which everything in theology depends” (Ak. 5:100). Nevertheless, created beings are distinct entities from God, and Spinozism is thereby avoided, because of the fact that things in themselves are endowed with transcendental freedom and are therefore the sources of their own actions.¹⁶ However, in order for things in themselves to have freedom, Kant maintains that they too must exist outside of space and time, which brings us directly to Kant's other group of arguments for transcendental idealism in his practical philosophy.

the danger that motion is ultimately a condition for God. This is bracketing Trendelenburg's own theological views which differ substantially from Kant's.

¹⁶ I am indebted to Brewer and Watkins for drawing attention to this point. For discussion of Kant's account of divine creation and its relation to Leibniz and Spinoza, see their “A Difficulty Still Awaits,” 183-6.

5.3. Second Practical Argument: Freedom

One recent attempt to solve the Neglected Alternative has appealed to Kant's arguments concerning the relationship between human freedom and the transcendental ideality of space and time.¹⁷ The argument, at least in broad strokes, is very straightforward: if human freedom is possible, transcendental idealism must be true; human freedom is possible, so transcendental idealism is true. As a solution to the Neglected Alternative, the success of this argument would be at best a consolation prize. Kant's primary attempt to establish the exclusive mind-dependence of space occurs in the Transcendental Aesthetic. Therefore, it would be ideal if we could show that he is able to establish this in the Aesthetic. If we must look to arguments far beyond the Aesthetic to establish the exclusive mind-dependence of space, then ultimately any motivation for the Neglected Alternative objection is undermined, but we are giving up on Kant's important argument for transcendental idealism in the Aesthetic (what I have called "The Argument for the Exclusive Mind-Dependence of Space") and perhaps on the possibility of a proof of transcendental idealism in theoretical philosophy.¹⁸

We must briefly raise similar concerns about the connection between transcendental idealism and freedom as we did about the connection between transcendental idealism and God. Though there is much controversy surrounding the status of Kant's claims about freedom, we can

¹⁷ Desmond Hogan, "Three Kinds of Rationalism." However, Kant's appeal to freedom has been suggested as a resolution to the Neglected Alternative as early as 1865, when Kuno Fischer appeals to the Antinomies in response to Trendelenburg. See Fischer's *System der Logik und Metaphysik*, 179.

¹⁸ Cf. Kanterian, "Trendelenburg Versus Kant, Fischer and Bird," 283n-284n.

conservatively say that Kant's Critical philosophy denies that human freedom can be demonstrated through theoretical philosophy. Any proof that we are free belongs exclusively to practical philosophy.¹⁹ Thus, as in our discussion of Kant's arguments concerning God, any implications about the nature of things in themselves that we draw from Kant's arguments concerning freedom are implications that cross the barrier between practical and theoretical philosophy.

We begin in the Antinomies, where Kant discusses how his system can explain the possibility of freedom. Specifically, the Third Antinomy consists of the conflict between freedom and deterministic nature. The solution is to restrict nature to appearances and to thus leave open the possibility that we, as transcendently real beings not bound by nature, are free. This is consistent with the fact that we, as appearances in the natural world, are subject to all the laws of nature. Kant sums up his solution like this:

...if appearances are things in themselves, then freedom cannot be saved. Then nature is the completely determining cause, sufficient in itself, of every occurrence...If, on the other hand, appearances do not count for any more than they are in fact, namely, not for things in themselves but only for mere representations connected in accordance with

¹⁹ As commentators have noted, even within Kant's practical philosophy, Kant seems to give a higher epistemic status to the claim that we are free than to the claim that God exists. Recall that the latter is described as a "postulate," whereas Kant sometimes says that the former can be proven. See Robert Adams, "Things in Themselves," *Philosophy and Phenomenological Research* 57, (1997): 814; Andrew Chignell, "Real Repugnance and Belief about Things-in-Themselves" in *Kant's Moral Metaphysics*, ed. James Krueger and Benjamin Lipscomb (Berlin: DeGruyter, 2010), 195; and Patrick Kain, "Practical Cognition, Intuition, and the Fact of Reason," in *Kant's Moral Metaphysics*, 220-30. On the evolution of Kant's view of freedom, see Karl Ameriks, "Kant's Deduction of Freedom and Morality," in *Interpreting Kant's Critiques* (Oxford: Clarendon Press, 2003), 161-92. Ameriks argues that Kant's post-1781 practical arguments for freedom are ultimately dogmatic rather than a coherent part of his Critical system. On the other hand, Lewis White Beck, for example, argues that Kant's demonstration of freedom in the second *Critique* does not overstep the bounds of Critical philosophy. See his *A Commentary on Kant's Critique of Practical Reason* (Chicago: University of Chicago Press, 1960), 174-5.

empirical laws, then they themselves must have grounds that are not appearances. Such an intelligible cause, however, will not be determined in its causality by appearances, even though its effects appear and so can be determined through other appearances (A536-7/B564-5).

Note, however, that Kant has not demonstrated that these “intelligible causes” actually exist, at least insofar as the causes are transcendently real subjects. Instead, his solution opens up room for the possibility of freedom. As Kant puts it in the B preface, his system allows for us to be able to think, rather than cognize, freedom (Bxxviii-xxx).

Kant gives a much less humble argument in his writings after the first *Critique*. He frequently asserts that freedom can in fact be proved, and he makes more explicit the connection between freedom and the mind-dependent status of space and time. At the beginning of the second *Critique*, Kant leaves no doubt about the reality of freedom, declaring it to be known a priori and the “keystone” of his system of pure reason (Ak. 5:3-4). We learn, however, that freedom is not cognized directly but is rather proved through our knowledge of the moral law. Later in this work, when Kant considers various threats to the possibility of freedom, existence in time is identified as a scenario in which freedom is impossible. “If one takes the attributes of the existence of things in time for attributes of things in themselves, which is the usual way of thinking, the necessity in the causal relation can in no way be united with freedom” (Ak. 5:94). The reason that time (and also space) poses a threat to freedom is that if a subject exists in time, then the actions of the subject are necessitated by the laws that govern time. And if a subject's actions are necessitated by anything outside of the subject's own will, these actions cannot be free.

The dangers of space and time for freedom are clarified in Kant's notes written near the

end of his life. First, Kant states the importance of transcendental idealism and freedom and links them together:

The system of the Critique of Pure Reason revolves around 2 cardinal points: as system of nature and of freedom, each of which leads to the necessity of the other. – The ideality of space and time and the reality of the concept of freedom, from each of which one is unavoidably led to the other analytically (R6353; Ak. 18:679).²⁰

More importantly, there is one note in which Kant makes explicit why space and time must be ideal for freedom to exist:

The reality of the concept of freedom, however, inevitably brings with it the doctrine of the ideality of objects as objects of intuition in space and time. For if these intuitions were not merely subjective forms of sensibility, but rather of objects in themselves, then their practical use, i.e., actions, would depend entirely on the mechanism of nature, and freedom together with its consequence, morality, would be annihilated (R6343; Ak. 18:668).²¹

The problem is that space and time together constitute a mechanistic and ultimately deterministic natural world. In order for our actions to be free, they must result from our own causality and must not be necessitated by the causal laws of the natural world. In other words, the determining ground for the subject's action must lie within the subject and not in spatio-temporal nature.

These points also further clarify why God cannot exist in space and time: the laws of space and time would necessitate that God act in particular ways and God's freedom would be destroyed.²²

The previous discussion places an important restriction on any structure that may order things in

²⁰ Dated 1796-97.

²¹ Dated 1796-98 (around May 1797).

²² Kant holds that it is unproblematic that God's actions are necessitated, so long as God's own will is the source of this necessity. See the *Prolegomena* (Ak. 4:344n) and Patrick Kain, "The Development of Kant's Conception of Divine Freedom," in *Leibniz and Kant*, ed. Brandon Look (New York: Oxford University Press, forthcoming).

themselves: the structure cannot have deterministic laws. Any structure in which things in themselves exist cannot necessitate that we, as transcendently real subjects, must act in any particular way. This restriction is the only way to preserve human freedom, according to Kant.²³

To summarize the results of both this section and the previous section, Kant's practical philosophy entails two restrictions on how things in themselves may be structured. The existence of God entails that there are no infinite structures that condition the existence of things in themselves, and the reality of human freedom entails that there is no transcendently real structure that necessitates the actions of things in themselves. It is important to emphasize that these restrictions are not proven within the system of theoretical philosophy as it is developed in the *Critique of Pure Reason* but are mandated by the practical philosophy that Kant establishes in the second *Critique*. This is as we should expect, since Kant holds that theoretical philosophy cannot make any claims about things in themselves. However, I will now go on to show that Kant in fact gives arguments squarely in the context of theoretical philosophy that conclude that things in themselves have particular structural properties.

5.4. Theoretical Arguments: Infinite Divisibility and Simples

²³ It is unclear to me the extent to which Kant's concerns about freedom also apply to non-deterministic laws. Suppose space and time were governed by probabilistic laws; we might still think that they threaten human freedom, because our actions would still need to be in accordance with these probabilistic laws, and so what determines our actions would at least partially lie outside of ourselves. Thus, it may be that if things in themselves exist in any sort of law-governed structure that constrains the activity of what it is structures, then freedom for things in themselves is eliminated. Cf. Bennett, *Kant's Dialectic*, 204.

In Kant's theoretical philosophy, there is one line of argument to which he keeps returning that, if successful, would place a significant restriction on how things in themselves could be structured. This argument concerns the composition of objects and whether they are infinitely divisible or composed of simples – entities that do not have separable parts. Though this topic arises in Kant's pre-Critical writings, the Second Antinomy is where Kant first presents the argument that he will later endorse in the *Metaphysical Foundations of Natural Science* and in his essay against Eberhard, “On a Discovery...”²⁴ The Second Antinomy consists of two competing arguments; one argument concludes that all reality ultimately consists of simples and the other concludes that no simples exist. The resolution, of course, appeals to transcendental idealism. According to transcendental idealism, the concept of a simple functions as a limit-concept. If we take a given appearance, we can subdivide it into its constituent parts, which can in turn be subdivided into further parts, and so on; we can continue this process indefinitely. The concept of a simple denotes the result of completing this endless task of division. To put this into Kant's exact terms, the process of subdividing an appearance is the movement from something conditioned to its conditions. A simple is the unconditioned which is never to be attained. In this way, both sides of the Antinomy are getting something right. It is true that simples do not exist as objects we can experience, but at the same time, reason compels us to think of simples as the unreachable limits of the decomposition of objects into parts.

Note that so far, we have been discussing objects in general, but we are particularly interested in how this argument applies to the entire structure that orders appearances, space. Kant states that the previous reasoning easily applies to the case of space, for an intuition of a space can be decomposed into smaller spaces, and so on, indefinitely. Thus, both spaces and the

²⁴ For a similar argument prior to the *Critique*, see the *Inaugural Dissertation* (Ak. 2:399).

objects that occupy space are divisible indefinitely. However, Kant goes on to clarify that the situation is different when it comes to the things in themselves.

Yet with that which is called substance in appearance things are not as they would be with a thing in itself which is thought through pure concepts of the understanding. The former is not an absolute subject, but only a persisting image of sensibility, and it is nothing but intuition, in which nothing unconditioned is to be encountered anywhere (A525-6/B553-4, modified translation).

Earlier in the Second Antinomy, Kant claims that it does not seem possible for a substance to be infinitely divisible. Though we can apply the category of substance to appearances, there is a different, stronger, sense in which things in themselves are substances that Kant expresses by calling them “absolute subjects.” Kant’s position is that things in themselves are ultimately simples or composed of simples in virtue of their status as real substances.²⁵ In other words, though Kant resolves the Second Antinomy by appealing to his transcendental idealism, Kant thinks that the first argument in the Antinomy, which denies infinite divisibility and maintains that everything consists of simples, *succeeds* in describing the nature of things in themselves.²⁶ This places a clear restriction on the structural properties of any transcendently real structure similar to space: it cannot be infinitely divisible and must be composed of simple substances.

This restriction on the structure of things in themselves is brought out far more directly and forcefully in the *Metaphysical Foundations of Natural Science* and “On a Discovery.” In the first work, Kant poses a dilemma that philosophers face:

²⁵ For Kant’s application of the unschematized category of substance to things in themselves, see Langton, *Kantian Humility*, 48-52.

²⁶ The other argument in the Second Antinomy, that concludes that simples do not exist, cannot succeed in describing the nature of things in themselves on Kant’s considered view, because it presupposes that objects are in space. Kant has earlier established that things in themselves do not exist in space.

For if matter is divisible to infinity then (concludes the dogmatic metaphysician) it consists of an infinite aggregate of parts; for a whole must already contain in advance all of the parts in their entirety, into which it can be divided. And this last proposition is undoubtedly certain for every whole as thing in itself. But one cannot admit that matter, or even space, consists of infinitely many parts (because it is a contradiction to think an infinite aggregate [Menge], whose concept already implies that it can never be represented as completed, as entirely completed). One would therefore have to conclude either, in spite of the geometer, that space is not divisible to infinity, or, to the annoyance of the metaphysician, that space is not a property of a thing in itself, and thus that matter is not a thing in itself, but merely an appearance of our outer senses in general, just as space is the essential form thereof (Ak. 4:506).

The dilemma arises from holding both that space is infinitely divisible, as is required by geometry, *and* that space pertains to things in themselves. It is no surprise that Kant resolves this dilemma by rejecting that space pertains to things in themselves. What is of interest is Kant's line of argument that establishes there is a conflict between infinite divisibility and transcendently real space. I contend that we can accurately represent Kant's reasoning in the above passage like this:

- 1) If space is infinitely divisible, it contains an infinite number of parts.
- 2) If we think of space as transcendently real and containing an infinite number of parts, it must be represented as completed.
- 3) Something with an infinite number of parts cannot be represented as completed.
- 4) Space is either not infinitely divisible or we must not consider it to be transcendently real.²⁷

As a direct corollary we can generalize the argument and its conclusion: we cannot consider anything transcendently real to be infinitely divisible.

The first premise is presented in the first sentence of the above quotation. The idea is that if something is divisible, the reason for its divisibility comes from its parts; so, if something can

²⁷ Cf. Falkenstein, *Kant's Intuitionism*, 296-8.

be divided infinitely, it must have an infinite number of parts. The second and third premises originate in the parenthetical remark in the middle of the the above quotation. The second premise comes from the fact that when we think of an infinite transcendently real structure, we must consider it to be “complete” in the sense that all of its parts exist in actuality. To contrast, consider when we think of an infinite structure that we ourselves create. Such a structure need not be given to us in its entirety but can be considered to be a structure that has the potential to progress and develop indefinitely in accordance with a rule.²⁸ Since a transcendently real structure is not one that we can construct or develop ourselves, we must think of an infinite transcendently real structure as a completed object that is completely unlimited in extent. The third premise seems a bit more straightforward. In order to think of a complex structure as completed, we must think of all of its parts, but an infinite structure always has more parts than can be contained in any particular representation (and certainly a representation possessed by finite humans).²⁹ On the basis of these points, we must either reject the infinite divisibility of space, or we must deny that we can consider space to be transcendently real.

There is a clear limitation in what this argument entails. First note that the argument assumes that space is being considered as a *compositum* rather than a *totum*. This is evident when Kant describes the space as an aggregate in the second parenthetical comment. However, we can at least conceive of a structure (like space) that is a *totum* and has an infinite number of parts, and we will have occasion to consider this possibility shortly. Second, given that space is in fact infinitely divisible and a *compositum*, the argument tells us that we cannot consider space to be

²⁸ This is how Kant describes space in the solution to the First Antinomy. See especially A510-14/B538-42.

²⁹ Cf. Kant's comment about the antinomies involving concepts that are too big or small for humans (A487/B515), as well as Falkenstein, *Kant's Intuitionism*, 278-9.

transcendentally real. But the argument specifies that we are unable to represent infinitely large and infinitely complex structures. Even though we cannot represent transcendentally real space, the argument does not eliminate the possibility that transcendentally real space exists, and we are just unable to think it. However, Kant gives one more version of the argument that strengthens his conclusion and is thus worth considering.

In his essay against Eberhard, “On a Discovery,” Kant attacks Eberhard for holding that space and time ultimately are composed of non-sensible simples that we cognize through our understanding.

[It can be] apodictically demonstrated that each thing in space, each alteration in time, as soon as it occupies a portion of space or time, can be divided into just as many things or alterations as are the space or time which it occupies. In order to avoid the paradox that is felt in this connection (in that reason, which ultimately requires the simples as the foundation of all composites, contradicts what mathematics demonstrates with regard to sensory intuition), one can and must admit that space and time are merely things of thought and beings of the imagination...(Ak. 8:202-3).

Despite the provocative ending of the passage, Kant goes on to clarify that he still holds that space and time are forms of sensibility that pertain to the receptivity of our faculty of intuition. Though this argument is very similar to the ones we have been considering, Kant extends the problems with the infinite divisibility of space to the objects that exist in space: if space were infinitely divisible, then so would the objects that exist in space. Kant states that this leads to a “paradox,” which presumably is that an object cannot be infinitely divisible, because then there would be no basic parts out of which the object is composed, and so the object could not exist at all.

Why does Kant think that if space is infinitely divisible, then the objects in space must be

infinitely divisible? Intuitively, it may seem plausible; if an object occupies a region of space that can be divided into exactly two regions A and B, then the object that occupies this entire region has two parts, one that occupies A and one that occupies B, and so we could in principle decompose the object into these two parts. If space is infinitely divisible, then similar reasoning would suggest that an object in space is infinitely divisible. Kant gives a more rigorous argument for the same conclusion in the *Metaphysical Foundations of Natural Sciences* (Ak. 4:503-5), but his reasoning has been forcefully criticized by a number of commentators.³⁰

One particularly interesting criticism is that Kant's reasoning is not able to successfully rule out a kind of monadology that Kant himself endorsed much earlier in his philosophical career. In his *Physical Monadology* (1756), Kant maintains that substances are extended simples and provides an explanation for how such substances can occupy an infinitely divisible space.³¹ The gist of this earlier view is that simples do not occupy particular spaces in virtue of having parts that exist in those spaces, but instead a simple occupies a particular space through its repulsive force (impenetrability) that keeps other substances out of the space. Further, Kant holds in the *Physical Monadology* that this view is completely consistent with the infinite divisibility of space, since it allows for the space occupied by the monad to be infinitely divided up as geometry requires, without requiring that the substance that occupies the space can be actually divided (the substance does not have parts that could be separated off and have an independent

30 See Erich Adickes, *Kant als Naturforscher* (Band 1) (Berlin: Walter de Gruyter, 1924), 197-99; Johnathan Bennett, *Kant's Dialectic*, 170-4; and Lorne Falkenstein, *Kant's Intuitionism*, 371n-372n. Cf. P.F. Strawson, *The Bounds of Sense*, 184.

31 Van Cleve states that on this view there is really only the appearance of extension rather than true extension (*Problems from Kant*, 66). It is not entirely clear to me why this is, but regardless, the issue of whether there is true extension on this view can be set aside for our purposes. It is interesting to note that Kant's view in the *Physical Monadology* has been cited as inspiration in a recent defense of the possibility of extended simples. See Peter Simons, "Extended Simples: A Third Way Between Atoms and Gunk," *The Monist* 87, (2004): 382-3.

existence).³² Kant attempts to refute this in the *Metaphysical Foundations of Natural Science* (Ak. 4:504-5), but his proof does not seem at all successful.³³

A very similar strategy for addressing Kant's arguments concerning the infinite divisibility of things in themselves, were they in space, is to hold that things in themselves have the mereological structure of a *totum*. Recall that for Kant the term “*totum*” denotes an object or structure in which the entirety of the structure is metaphysically prior to the parts, or in other words, in which the parts of the object depend on the whole object. Kant holds that the fact that space is a *totum* is what saves it from being infinitely divisible into nothingness. Through abstraction from the whole of space, we know that space has an infinite number of parts, but the parts are all dependent upon and unified by the whole entity, rather than the whole entity being built up from these infinite parts. I see no reason why we could not make a similar claim about the substances that occupy a purported transcendentally real space: substances are spatially extended *tota*. This allows us to say that substances occupy regions of space, where the regions of space are infinitely divisible, without having to hold that the substances decompose into an infinite number of parts, since the parts of the substance depend on the existence of the entirety of the substance.³⁴

32 For criticism of this point, see Martin Schönfeld, *The Philosophy of the Young Kant* (New York: Oxford University Press, 2000), 171.

33 Falkenstein speculates that by his Critical writings, a view of space like the one proposed in the *Physical Monadology* is completely off the table for Kant, because it is a view on which space is a relation or accident produced by the activity of substances, and Kant thinks that such a view cannot account for phenomena like incongruent counter-parts and geometrical constructions (*Kant's Intuitionism*, 371n-372n). Thus, space must be a structure that is independent of the objects in space, regardless of whether space is mind-dependent or mind-independent. On this point, see the discussion of Buroker on p. 205 below.

34 On the proposed view, substances would be characterized as simples according to the definition in the *Physical Monadology*: “A simple substance, which is also called a monad, is one which does not consist of a plurality of parts, any one of which could exist separately from the others” (Ak. 1:477). The key claim of the proposed view is that the parts of the

It is clear that Kant does not actually accept this last possibility either. In the *Metaphysical Foundations of Natural Science* when discussing Leibniz's monadology, Kant simply asserts without argument that when it comes to the structure of things in themselves “the parts must here be given prior to all composition” (Ak. 4:507).³⁵ One possibility suggested by the thesis of the Second Antinomy is that objects that have the structure of a *totum* do not truly have parts, because the “parts” depend on the whole entity and cannot exist separately. If so, then the possibility that there are transcendently real *tota* is very much like the ontology of the *Physical Monadology* in which monads acquire extension through their repulsive force. The main difference is that the former possibility allows for a substance to be literally present in the spaces it fills rather than merely filling the spaces through the repulsive force of a point-sized monad. Adapting terminology from Bennett, we could describe Kant's own distinctions like this: *composita* have “real parts” or parts that can exist independently of the object they compose. On the other hand, *tota* can merely have “conceptual parts,” which are discernible subregions that are nevertheless unable to exist independently of the whole.³⁶ Whether there could be such transcendently real *tota* depends on whether there could be extended simples, which Kant denies but unpersuasively so.

At this point, we have canvassed Kant's arguments concerning the purported problems with the infinite divisibility of space, and we can now step back and consider what they tell us about his views on the structure of transcendental reality. It is clear that Kant thinks that anything transcendently real must be either a simple substance or composed of simple substances, and

substance could not exist independently of the other parts (and the whole entity).

35 The full passage is reproduced on p. 201 below.

36 Cf. Bennett's distinction between “real divisibility” and “conceptual divisibility” in *Kant's Dialectic*, 167-70.

further no transcendental substance can be infinitely divisible. Though the quality of some of Kant's arguments for these points can be suspect, they are nevertheless of great interest, since they fall squarely in Kant's theoretical philosophy and attempt to establish substantive conclusions about the nature of things in themselves.

It is thus clear that Kant holds that things in themselves are simples, but Kant takes one more step to the bold claim that these simples should be understood as Leibnizian monads. For example, he directly moves from a discussion of the infinite divisibility of matter to a qualified endorsement of Leibniz in the *Metaphysical Foundations of Natural Science*:

And one thus attributed the mathematical theorem of the infinite divisibility of matter, a proposition presupposing the highest [degree of] clarity in the concept of space, to a confused representation of space taken as basis by the geometer – whereby the metaphysician was then free to compose space out of points, and matter out of simple parts, and thus (in his opinion) to bring clarity into this concept. The ground for this aberration lies in a poorly understood monadology, [a theory] which has nothing at all to do with the explanation of natural appearances, *but is rather an intrinsically correct platonic concept of the world devised by Leibniz, insofar as it is considered, not at all as object of the senses, but as thing in itself, and is merely an object of the understanding*, which, however, does indeed underlie the appearances of the senses. Now the composite of things in themselves must certainly consist of the simple, for the parts must here be given prior to all composition (Ak. 4:507, my emphasis).

We see that Kant chides those philosophers who try to place monads in space as simple points, but then immediately endorses the view that Leibniz's description of reality is correct, as long as we view it as describing transcendental reality! Kant continues to endorse the view that things in themselves are simples in “On a Discovery,” and at the end of the essay declares that his Critical philosophy can be viewed as “the true apology for Leibniz” (Ak. 8:250-1).³⁷ But Kant's endorsement of things in themselves as monads goes beyond asserting that things in themselves

³⁷ Cf. Ak. 8:209. For an interpretation of Kant's transcendental idealism focused on Kant's Leibnizianism, see Rae Langton's *Kantian Humility*, passim.

are structured as simples but also includes the claim that things in themselves are thinking beings. This point comes out in Kant's discussion of the Leibnizian philosophy in the Amphiboly. There, Kant points out that the so-called "substances" we perceive in space consist entirely of relations, and we know such substances only through the effects of their forces (A265/B321). When we employ our understanding to think of an object that is independent of the conditions of sensibility, such an object must consist of properties that Kant calls "inner determinations." But Kant asks "what can I think of as inner accidents except for those which my inner sense offers me? - namely that which is either itself thinking or which is analogous to one" (A265-6/B321). Thus, we must view things in themselves as thinking beings or like thinking beings. Therefore, the complete picture of the positive nature of things in themselves that Kant provides is that they are mereologically simple, thinking beings.³⁸

The claim that things in themselves are thinking beings is framed as stemming from our psychological inability to understand the inner properties of things in themselves as being like anything but the inner properties that we know in ourselves as appearances. However, there is little doubt that Kant is making a substantial positive assertion about the nature of things in themselves when he claims that they are simples. More than any other claim we have considered in this dissertation, Kant's assertion that things in themselves are simples seems to leap right over the epistemic limits that Kant places on his Critical theoretical philosophy (i.e. that we lack insight into the nature of things in themselves). This assertion is dramatically different from the restrictions on things in themselves that come from the nature of God and freedom, as these latter restrictions arise squarely in the context of his practical philosophy. The claim that things in

³⁸ This coheres very nicely with the argument in the previous section, since Kant wants us to be free things in themselves with wills and moral responsibility.

themselves are simples is the conclusion of completely theoretical arguments. These arguments endanger the Critical status of his theoretical philosophy and seem to turn Kant's philosophy into the very dogmatic metaphysics that he deplors.

In light of this danger, there are two routes Kant could take to defend the appropriateness of his view that things in themselves are simples. First, Kant may only hold that we cannot have *synthetic* knowledge of things in themselves and that we can have a limited form of insight into things in themselves through analytic truths.³⁹ Though it is clear that Kant does not think such analytic truths could establish the existence of anything transcendently real, it could give us knowledge in a conditional form: if things in themselves exist, then they must have the property of being *x*. Returning to Kant's essay "On a Discovery" in which he endorses the simple nature of things in themselves, Kant states that the principle of contradiction (nothing is both *x* and *not x*) applies to all objects we can think, regardless of whether the object can be an object of intuition:

Now, it is clear that the principle of contradiction is a principle that is valid for all that we can possibly think, whether or not it is a sensible object with a possible intuition attached; because it is valid for thought in general, without regard to any object. Thus, whatever conflicts with this principle is obviously nothing (not even a thought) (Ak. 8:195).

Though it may seem doubtful that the claim that things in themselves are simples can be known through the analysis of the concept of a thing in itself or substance, Kant's argument suggests that he believes, on the contrary, that it can be deduced through analysis.⁴⁰ Kant thinks that there is a contradiction in a substance being infinitely divisible and actually existing. This cannot establish

³⁹ See Adams, "Things in Themselves," 810.

⁴⁰ This creates a tension, however, with Kant's skepticism about the role of definitions in philosophy later in the *Critique* (A730/B758).

that simple things in themselves exist but can establish that if things in themselves exist, then they are simples (or composed of simples).

This possibility would provide us with genuine knowledge of things in themselves, but Kant might endorse a weaker possibility, which is that his claims about the structure of things in themselves do not constitute knowledge but rather theoretical *belief*. Kant's conception of theoretical belief has recently been explicated by Andrew Chignell, who argues that many of Kant's claims about transcendental reality in both his practical and theoretical philosophy can be understood as rationally permissible beliefs.⁴¹ On the practical side, such beliefs include Kant's claims about the reality of freedom and God, and on the completely theoretical side, an example is the belief that things in themselves cause the appearances we experience.⁴² Kant states in the B preface that we would face an absurdity if there were appearances without something underlying the appearances, of which the appearances are appearances *of* (Bxxvi-xxvii). Thus, we are justified in believing that appearances are appearances of things in themselves. Since Kant similarly thinks it would be absurd for there to be transcendently real substances that are infinitely divisible, we may similarly be justified in believing that simple substances provide the foundation for all transcendental reality. Therefore, the claim that if there are things in themselves, then they are simples would not necessarily be viewed as an object of knowledge but rather belief, and this would provide a nice reconciliation between Kant's denial of knowledge of things in themselves with his assertions about the structure of things in themselves.

41 "Belief in Kant," *Philosophical Review* 116, (2007): especially 335-57.

42 It may be that some propositions have varying epistemic statuses depending on whether we adopt a theoretical or practical perspective. For example, Desmond Hogan suggests that the claim that we have free wills can count as knowledge from the perspective of practical philosophy and belief from the perspective of theoretical philosophy. See his "How to Know Unknowable Things in Themselves," *Nous* 43, (2009): 60.

These previous interpretive routes suggest that we need not construe Kant's claims against infinite divisibility and for the simplicity of things in themselves to be dogmatic, and they suggest that we can find an appropriate place for these claims within Kant's Critical philosophy. We will soon further consider what to make of Kant's claims about the nature of transcendental reality as a whole, but we first need to evaluate one last kind of theoretical argument by Kant concerning the structure of transcendental reality that has recently been used to try to solve the Neglected Alternative.

5.5. Relations and Incongruence

There is one last prominent purported solution to the Neglected Alternative that we have yet to consider. This is the solution provided by Jill Buroker in her book *Space and Incongruence*. She interprets Kant's transcendental idealism with a special focus on Kant's view of relations and brings out Kant's Leibnizianism about things in themselves that we have already discussed. She, however, adds an important element to this interpretation of things in themselves and argues that Kant also holds that all relational properties of things in themselves can be reduced to intrinsic properties of things in themselves.⁴³ This principle is somewhat hidden in Kant's first *Critique*, but nevertheless Kant does seem to endorse it in a couple passages in the *Amphiboly*.

⁴³ See *Space and Incongruence* (Dordrecht: D. Reidel, 1981), 84-7.

For, if I think of mere things in general, then the difference in the outer relations certainly does not constitute a difference in the things themselves, but rather presupposes this, and, if the concept of the one is not internally distinct from that of the other, then I merely posit one and the same thing in different relations (A280/B336).

The claim is that in the case of two things in themselves, if they differ in their outer relations then there *must* be a difference in their inner properties. Kant also illustrates this point with the example of a drop of water: “...if I know a drop of water as a thing in itself according to all of its inner determinations, I cannot let any one drop count as different from another if the entire concept of the former is identical with that of the latter” (A272/B328). If we were to view drops of water as things in themselves, then any difference between the water drops cannot come from purely external relations, rather, there must be some difference in the inner properties or the “entire concepts” of the water drops. This contrasts with objects in space, where objects are differentiated by the completely outer relations of spatial location (cf. A283-5/B339-43). As Van Cleve has pointed out, Kant strictly does not show that outer relations are reducible to inner properties; there still might be genuine, irreducible outer relations. Instead Kant commits himself to the view that outer relations must at least *supervene* on inner properties.⁴⁴ What this means is that there cannot be a difference in the outer relations of two objects without there being a difference in their inner properties.

Buroker maintains that Kant's view of the relations between things in themselves points to a crucial difference between the space that orders appearances and any space-like set of relations that may order things in themselves. Relying heavily on Kant's incongruent counterparts arguments, Buroker correctly argues that Kant tries to show that the space that orders appearances is independent of the appearances it orders. She then holds that these points

⁴⁴ *Problems from Kant*, 47

can give us a solution to the Neglected Alternative:

But if phenomenal objects are governed by a system of relations independent of those objects, whereas relations of noumenal substances are not so governed, the spatial properties and relations among phenomena do not correspond to the relational features of noumena. Hence space in no way represents noumena, even incompletely or 'confusedly'. As a system of relations standing independently of the things related in it, the representation of space 'applies' only to things that can be known by the senses and not at all to merely intelligible entities. Consequently, things in themselves are in no way spatial.⁴⁵

In summary, space could not apply to things in themselves or exist as an ordering of things in themselves, because space exists independently of the objects it orders, and relations between things in themselves do not exist independently of the things in themselves (they are either reducible to or supervenient on internal properties).⁴⁶ If correct, this argument is strong enough to rule out the conclusion that space has a transcendentally real existence. However, it would still function as a less than ideal resolution to the Neglected Alternative, since Buroker concedes that the argument of the Aesthetic is not strong enough to defeat the Neglected Alternative alone. Kant thinks that the non-spatiality of things in themselves follows from the Expositions, and Buroker abandons Kant on this claim.⁴⁷

One frequent criticism of Buroker's solution is that it makes a controversial identification of things in themselves with noumena.⁴⁸ Recall that in the Aesthetic, Kant specifically explains

⁴⁵ *Space and Incongruence*, 100.

⁴⁶ In light of the discussion in the last chapter, it is important to qualify the sense in which space is independent of the objects it orders. The Critical Kant interprets this to mean that the objects ordered in space in no way determine any of the properties of space itself. Rather, space is a structure that is "placed on" the objects we experience by the a priori intuition of space. This is entirely compatible with Kant's view that particular spatial properties of objects are not determined by the a priori intuition of space but through synthesis.

⁴⁷ See Falkestein, "Kant's Argument for the Non-Spatiotemporality of Things in Themselves," 272.

⁴⁸ See *ibid* and Van Cleve, *Problems from Kant*, 48.

his transcendental idealism in terms of things in themselves – space and time do not in any way pertain to or represent things in themselves. The term “noumena” is introduced later in the *Critique* and is frequently employed in Kant's discussion of Leibniz's philosophy. Whereas things in themselves are most often understood in a completely negative sense, as things insofar as they are independent of the conditions we place on them, noumena are sometimes considered positively as unknown objects that are merely thought by the understanding (and to cognize these noumena would require intellectual intuition).⁴⁹ Therefore, it is not obvious that the terms “things in themselves” and “noumena” mean the same thing, and it is thus unclear whether Buroker's argument quoted above, formulated in terms of noumena, can legitimately be employed to reach the conclusion that space does not pertain to things in themselves.

Despite this concern, I do not think that Buroker's defense fails for conflating noumena and things in themselves. The key controversial claim that Buroker needs is that Kant holds that there are no completely independent relations between things in themselves. In the passages I have cited above where Kant endorses this claim, he primarily uses the term “thing in itself” rather than “noumenon.” What should concern us about Kant's endorsement of this claim is that he is drawing a very substantive conclusion about the nature of things in themselves that threatens to overstep the bounds of Critical philosophy. To integrate this claim into Kant's Critical philosophy, we must either consider it to be merely analytic knowledge or a theoretically-justified belief; this is where Kant runs into a problem. It is not at all obvious *why* the substances that exist independently of us cannot have any relations that do not depend on the inner properties of the substances. Kant does not give an actual argument for this claim, and it seems to

⁴⁹ See A249, B306, B308-9, and A256/B312.

ultimately stem from a mere prejudice against the possibility of such relations.⁵⁰ To borrow a point from Yaron Senderowicz, the term “things in itself” might plausibly denote objects whose identities are determined by their inner properties, which is entirely compatible with these objects standing in irreducible, real relations.⁵¹ The upshot of all this is that we see another aspect of Kant's positive picture of transcendental reality: all relations between things in themselves supervene on or reduce to the inner properties of the things in themselves. However, Kant's support for this claim is not at all solid, and it would therefore not provide a good foundation for a Kantian argument against the Neglected Alternative.

5.6. Kant's Picture of Transcendental Reality and our Knowledge of It

At this point, it is helpful to summarize the findings of the chapter thus far and assess what we have found. We have canvassed a wide range of Kant's Critical texts, spanning from the first edition of the *Critique of Pure Reason* (1781) to the “On a Discovery” essay (1790). However, aficionados of architectonic completeness will note that we have provided an incomplete discussion of perhaps the most obvious place where Kant talks about the structure of transcendental reality: the Antinomies. In our discussion of infinite divisibility and freedom, we have covered the second and third Antinomies, but we have yet to explicitly consider the

50 See Paul Guyer, *Kant and the Claims of Knowledge*, 351-2 and Van Cleve, *Problems from Kant*, 271n. Kant's view of the reducibility of relations closely mirrors the view of Leibniz (see Langton, *Kantian Humility*, 93-6)

51 *The Coherence of Kant's Transcendental Idealism* (Dordrecht: Springer, 2005), 141. Cf. Guyer, *Kant and the Claims of Knowledge*, 337-8.

remaining two Antinomies. The Antinomies seem important here, because Kant characterizes them as “indirect proofs” of transcendental idealism (A506/B536). Thus, they appear to be likely sources of insight into how Kant thinks transcendental reality can and cannot be.

So, first consider the first Antinomy, which addresses the issue of whether the world is finite or infinite. The argument of the Antinomy, if successful, would show the accuracy of transcendental idealism, in the sense of showing that the world we experience, the world of appearances, does not have an existence in itself. However, the argument cannot give us any insight into the nature of things in themselves, since it is centrally concerned with our *cognition* of the world. This is especially clear from Kant's reflection on the first Antinomy in the

Prolegomena:

Now if I ask about the magnitude of the world with respect to space and time, for all of my concepts it is just as impossible to assert that it is infinite as it is finite. For neither of these can be contained in experience...Therefore the magnitude of the world, determined one way or the other, must lie in itself, apart from all experience. But this contradicts the concept of a sensible world, which is merely a sum total of appearance...(Ak. 4:342; cf. A506/B536).

We see that the key concern in the first Antinomy is with the sensible world, the world that we cognize and appears to us. The fact that features of our cognition tell us that this world must be transcendently ideal does not entail anything about the completely non-sensible world of things in themselves.

We should also consider the fourth Antinomy, as it is frequently overlooked.⁵² The fourth Antinomy concerns the existence or non-existence of a necessary being and has the unique

⁵² For example, see Allison's *Kant's Transcendental Idealism*, which contains a good discussion of the first three Antinomies and considers the fourth only in passing. Kant himself discusses it in just a brief paragraph in the *Prolegomena* and for its solution refers back to the third Antinomy.

feature of focusing exclusively on time rather than space or both space and time. Still, for our purposes, the moral of the third Antinomy exhausts any conclusion we could draw from the fourth Antinomy about the nature of transcendental reality. The third Antinomy tells us that things in themselves cannot stand in a structure that provides conditions for the actions of the things in themselves. The fourth Antinomy concerns the problems that arise from trying to trace back the origin of a series of conditioned events. Thus, the conclusion from the third Antinomy eliminates the problematic scenario with which the fourth Antinomy is concerned.

To summarize the picture of transcendental reality that we have developed in this chapter, despite reservations about the success of Kant's arguments, we have seen that his arguments entailed the following conclusions:

- 1) There cannot exist an infinite, or more precisely, limitless, structure in transcendental reality.
- 2) Things in themselves cannot be ordered in a structure that necessitates their actions.
- 3) There cannot be an infinitely divisible structure and accordingly, everything must ultimately consist of simples.
- 4) There are no relations between things in themselves that exist independently of the inner properties of things in themselves.⁵³

Unsurprisingly, these points are primarily negative – they rule out possible ways that transcendental reality could be, rather than affirming that things in themselves must have a particular structure. The one exception is the claim that things in themselves must be simples.

However, there is one more possible piece to Kant's picture of transcendental reality. Kant claims that there is in fact a genuine analogue to space in transcendental reality, which is God's omnipresence. Kant's view is that God not only maintains the existence of all substances (in

⁵³ For each of these points see sections 5.2., 5.3., 5.4., and 5.5. respectively.

themselves) but directly mediates the interaction of substances. In the *Metaphysik Mrongovius* (1782-3), Kant states quite bluntly that “the concept of space accomplishes in the sensible world what the divine omnipresence does in the noumenal world, and one can therefore call it as it were a phenomenon of the divine omnipresence” (Ak. 29:866) and that “...God is the cause of the noumenal world and of the possibility of the interaction in it” (Ak. 29:857).⁵⁴ Kant further elaborates the parallels between space and divine omnipresence in his *Lectures on the Philosophical Doctrine of Religion* (1783-4):

But space is only an appearance of our senses and a relation of things to one another; and the relation between things themselves is possible only insofar as God conserves them through his immediate and inner presence; thus he determines the place of each through his omnipresence; so to this extent God himself is the cause of space, and space is a phenomenon of his omnipresence. The omnipresence of God is consequently not local but virtual; i.e. God's power operates constantly and everywhere on all things; thus he conserves substances themselves as well as governing their state (Ak. 28:1108-9).

We see that Kant describes space, the structure that orders outer appearances for us, as the phenomenon of God's omnipresence; in other words, space itself can be viewed as an appearance of God's omnipresence. Though unlike space, God's omnipresence does not necessarily provide any sort of structural restrictions on the objects it encompasses (e.g. God's omnipresence does not mean that things in themselves are Euclidean), Kant's essential claim is that God's omnipresence has the same function for the objects it encompasses as space does for the objects it orders, namely, it creates a community in which objects can interact.⁵⁵

Kant's justification for this claim cannot be found in his theoretical philosophy; in the

⁵⁴ Cf. *Metaphysik L₁* (mid-1770), Ak. 28:214.

⁵⁵ Cf. Christopher Insole, “Kant's Transcendental Idealism, Freedom and the Divine Mind,” *Modern Theology* 27, (2011): 616-7. See James Messina's “Kant's Hidden Ontology” for an interpretation that focuses on the connection between space and community.

“Discipline” section of the *Critique*, Kant simply denies that we can conceive of a community of substances other than the ones that we experience (A770-1, B798-9). His justification instead arises purely from within his practical philosophy. Practical philosophy postulates the existence of God, and one property that God must have is omnipresence “so that it [God] is immediately ready for every need that is demanded by the highest good for the world” (A815/B843; cf. Ak. 5:140). God's omnipresence is thus required to create the transcendently real community of moral agents that brings about the highest good, as outlined in the second *Critique*:

The Christian doctrine of morals now supplements this lack [of correspondence between the moral law and happiness]...by representing the world in which rational beings devote themselves with their whole soul to the moral law as a *kingdom of God*, in which nature and morals come into a harmony, foreign to each of them of itself, through a holy author who makes the derived highest good possible (Ak. 5:128; modified translation).⁵⁶

God's own role in creating this community is what Kant likens to space and constitutes one last demand on the nature of transcendental reality on the part of Kant's practical philosophy.

It is thus clear that Kant paints a picture of transcendental reality that excludes the existence of something similar to space in virtually any relevant way. Kant holds that there cannot be any transcendently real structure that is infinite, law-governed, or infinitely divisible. Further, the function that space provides in the phenomenal realm, to make interaction possible, is provided by God in the noumenal realm. It is thus tempting to employ one or all of these claims in a defense of Kant against the Neglected Alternative. Such claims would get us a conclusion that is even stronger than the one I have argued for in the last chapter. Whereas, I have argued that Kant has the resources to rule out the possibility that space is transcendently

⁵⁶ For discussion, see Christopher Insole, *Kant and the Creation of Freedom* (New York: Oxford University Press, 2013), 182.

real, the claims discussed in this chapter entail that nothing transcendently real could even have the same sort of properties as space and therefore be similar to space.

However, even if we find that some of Kant's arguments from this chapter are compelling, I maintain that we should not employ any of these arguments in a response to the Neglected Alternative. There is nothing inconsistent about supplementing my defense against the Neglected Alternative from the fourth chapter with one or more of the arguments, but it is somewhat dialectically unorthodox and also unnecessary. To do so would be dialectically unorthodox, because the Neglected Alternative has historically focused on Kant's argument in the *Transcendental Aesthetic*; the point of contention is whether Kant there establishes the exclusive subjectivity of space. Recourse to Kant's practical philosophy and theoretical speculations later in the *Critique* would drag in complete different sets of issues.

Much more importantly, it is completely unnecessary to invoke any of Kant's arguments from this chapter in order to defend against the Neglected Alternative. In the last chapter I demonstrated that Kant has a good argument for the conclusion that space is completely mind-independent. The arguments discussed in this chapter go further and purport to show that there cannot be anything mind-independent that is even similar to space in various ways, but such arguments are not required in the context of the Neglected Alternative, because Kant simply does not claim that there could not be anything completely mind-independent that is similar to space. This is a possibility that Kant leaves open, because it is not a possibility that is relevant in the context of establishing his system of theoretical philosophy, as it is developed in the *Aesthetic* and *Analytic*. This is not to say that the issue of whether there could be a mind-independent structure similar to space is irrelevant to Kant's philosophy as a whole. In the *Antinomies* and

later in his practical philosophy, Kant makes clear that certain conditions on transcendental reality need to be in place in order for human freedom to be possible. The view of freedom and moral responsibility that he goes on to develop is made possible by the fact that the system of theoretical philosophy constructed in the *Aesthetic* and *Analytic* does not make any demands on the structure of transcendental reality; in this way, Kant's theoretical philosophy allows for the possibility of freedom and morality without itself demonstrating its actuality.

Conclusion

I have argued that the Neglected Alternative objection is unsuccessful. In the first chapter I presented a preliminary interpretation of Kant's argument in the Transcendental Aesthetic for the conclusion that space is exclusively mind-dependent. In the next two chapters I considered arguments from Pistorius and Trendelenburg which attempt to show that Kant's own argument contains an important lacuna. Building on these three chapters, in the fourth chapter I showed that there is no gap in Kant's argument and so the Neglected Alternative objection fails. In the fifth chapter I considered other arguments in Kant's writings that entail that nothing even similar to space could exist independently of us, but I ultimately decided against incorporating any of these arguments into my defense against the Neglected Alternative.

To illustrate my strategy, it is instructive to consider a possible dilemma for any solution to the Neglected Alternative. Any purported solution must either (1) be dogmatic, in that it holds that Kant makes substantive claims about the nature of things in themselves or (2) it fails to eliminate the possibility that there could be something transcendentally real that is like space.¹ My solution attacks the second horn of the dilemma head-on, by arguing that the alternative mentioned in the second horn is not a relevant alternative in the context of the Aesthetic, and therefore Kant does not and need not eliminate the alternative in his Argument for the Exclusive Mind-Dependence of Space. If one still thinks that Kant needs to eliminate the alternative presented in the second horn, one must look to Kant's arguments outside of the main argument of the Aesthetic that I have considered in chapter five.

¹ I am grateful to Fred Beiser for suggesting to me a dilemma like this.

Another question facing the task of resolving the Neglected Alternative is what a solution to the Neglected Alternative should even look like. Many recent solutions to the Neglected Alternative have had a form like this: Kant argues that space has feature x , a completely mind-independent space could not have x , therefore space is not mind-independent. Such purported solutions are nice in that they would simply and directly establish that the Neglected Alternative fails. However, a review of the complex history of the Neglected Alternative leads to the nagging worry that any short argument against the Neglected Alternative will necessarily omit some important issue and therefore the only way to truly assess whether the Neglected Alternative succeeds or fails is to complete an interpretation of Kant's entire Critical philosophy (or at least his Critical theoretical philosophy).

My own response has tried to steer a middle course. The clue for resolving the Neglected Alternative is Kant's claim that we have an a priori intuition of space, and even though Kant presents the conclusion that space is completely mind-dependent as an inference that follows from the brief consideration of the a priori and intuitive nature of space in the Aesthetic, I maintain that in order to completely solve the Neglected Alternative, we need to consider a large portion of Kant's theory of spatial cognition, which involves looking not only at the Aesthetic but parts of the Analytic and Dialectic as well. We found that Kant's theory of spatial cognition is multifaceted and that understanding it requires the substantial interpretative work that I have performed in large parts of the first and fourth chapters. I have acknowledged that any interpretation of Kant's view of space will be controversial and have briefly shown how alternative interpretive possibilities also lead to the result that the Neglected Alternative objection is unsuccessful.

The discussion in this dissertation has not addressed the success of Kant's arguments for the claim that we have an a priori intuition of space. Recall that for the purposes of discussing the Neglected Alternative, we grant Kant's argument in the Expositions and consider whether it follows that space is completely mind-dependent. The extent to which Kant is able to show that we have an a priori intuition of space is tremendously controversial. Most controversial of all is the content of the Expositions that purport to show that our knowledge of space is fundamentally intuitive, by appeal to specific features of space like its infinitude, givenness, and singularity; such issues have received great attention in recent literature.² Equally important, however, is the underlying picture of what a priori intuition is supposed to accomplish within Kant's system. In the fourth chapter, I have specifically highlighted Kant's argument that a priori intuition needs to provide us with necessary and secure geometrical knowledge, which leads him to the conclusion that a priori intuition only gives us access to the mind-dependent. This is another essential argument that deserves more critical scrutiny, before anyone can conclude that Kant's view of space is accurate. Thus, overall, I have explicated Kant's reasoning in detail and have demonstrated how he provides non-question-begging justification for the relevant arguments in the Aesthetic, but it is an open philosophical question, that I have not attempted to resolve, whether we should ultimately accept the premises and justification that Kant employs.

Therefore, in addition to providing an answer to whether the Neglected Alternative succeeds, my work here suggests two programmatic recommendations for future work on Kant. First, any interpretation of the Transcendental Aesthetic should reconstruct Kant's argument as a

2 The canonical defense of Kant is Allison's *Kant's Transcendental Idealism*, 90-98; on the other hand, a very critical discussion is found in Falkenstein, *Kant's Intuitionism*, especially 217-74. See also McLear's "Two Kinds of Unity in the *Critique of Pure Reason*" and Patton's "The Paradox of Infinite Given Magnitude" among many others.

logically valid one, where Kant's conclusion of transcendental idealism follows from the premises that Kant presents. This does not mean that we need to interpret Kant as holding premises that are beyond doubt but rather that we recognize Kant as presenting a case for transcendental idealism that does not involve any unjustified argumentative leaps. Second, the interpretive work that I have undertaken in order to solve the Neglected Alternative indicates the need for closer study of Kant's conception of a priori intuition. There is widespread consensus that Kant argues for the view that a priori intuition provides our most fundamental access to space and time and that these intuitions are connected to the formal element of our intuition; in addition there has been excellent recent work on Kant's view of a priori intuition in the context of mathematical knowledge;³ what has been lacking is a more unified study of what a priori intuition *is* – what exactly a priori intuition presents to us in the context of Kant's entire picture of human cognition, how it presents objects to us, in what sense it is innate or acquired, and how it truly differs from the other a priori elements in our cognition, the categories. It is unsurprising that these questions have not been addressed, as Kant gives us little to address them with and instead focuses on the nature of the structures that are provided by a priori intuition. A priori intuition itself remains in the background as a mysterious epistemic mechanism. I have begun to address these issues insofar as they have a bearing on the Neglected Alternative, but such issues deserve further detailed study in their own right.

3 See especially Emily Carson's "Kant on Intuition in Geometry" and Lisa Shabel's "Kant's 'Argument from Geometry'" and "Reflections on Kant's Concept (and Intuition) of Space," *Studies in the History and Philosophy of Science* 34, (2003): 45-57.

Bibliography

- Adair-Totef, Christopher. "The Neo-Kantian *Raum* Controversy." *British Journal for the History of Philosophy* 2, (1994): 131-148.
- Adams, Robert Merrihew. "Things in Themselves." *Philosophy and Phenomenological Research* 57, (1997): 801-25.
- Adickes, Erich. *Kant als Naturforscher* (Band 1). Berlin: Walter de Gruyter, 1924.
- Allais, Lucy. "Kant's Argument for Transcendental Idealism in the Transcendental Aesthetic." *Proceedings of the Aristotelian Society* CX, part 1 (2010): 47-75.
- Allison, Henry. *Idealism and Freedom*. New York: Cambridge University Press, 1996.
- . *Kant's Transcendental Idealism*. New Haven: Yale University Press, 1983.
- . *Kant's Transcendental Idealism: Revised and Enlarged Edition*. New Haven: Yale University Press, 2004.
- . "The Non-Spatiality of Things in Themselves for Kant." *Journal of the History of Philosophy* 14, (1976): 313-21.
- Ameriks, Karl. "Kant's Deduction of Freedom and Morality." In *Interpreting Kant's Critiques*, 161-92. Oxford: Clarendon Press, 2003.
- . "Kant's Idealism Today." In *Interpreting Kant's Critiques*, 98-111. Oxford: Clarendon Press, 2003.
- Bader, Ralf. "Self-knowledge in §7 of the Transcendental Aesthetic." In *Akten des XI. Internationalen Kant-Kongresses*, edited by Stefano Bacin, Alfredo Ferrarin, et al., 531-40. Berlin: Walter de Gruyter, 2013.

- Baumgarten, Alexander. *Metaphysica*. Halle, 1757. [partially reprinted and translated in Watkins, *Background Source Materials*, 87-131]
- Beck, Lewis White. *A Commentary on Kant's Critique of Practical Reason*. Chicago: University of Chicago Press, 1960.
- Beiser, Frederick. *The Fate of Reason*. Cambridge: Harvard University Press, 1987.
- . *German Idealism: The Struggle against Subjectivism 1781-1801*. Cambridge: Harvard University Press, 2002.
- . *Late German Idealism: Trendelenburg and Lotze*. New York: Oxford University Press, 2013.
- Bennett, Jonathan. *Kant's Analytic*. New York: Cambridge University Press, 1966.
- . *Kant's Dialectic*. New York: Cambridge University Press, 1974.
- Berkeley, George. *A Treatise Concerning the Principles of Human Knowledge*, edited by R.S. Woolhouse. New York: Penguin Books, 1988 [originally published in 1710].
- Bird, Graham, "The Neglected Alternative: Trendelenburg, Fischer, and Kant." In *A Companion to Kant*, edited by Graham Bird, 486-99. Malden: Blackwell Press, 2005.
- Blackburn, Simon. "Morals and Modals." In *Metaphysics: An Anthology*, edited by Jaegwon Kim and Ernest Sosa, 634-48. Oxford: Blackwell, 1999. [originally published in *Fact, Science and Morality*, edited by Graham McDonald and Crispin Wright, 119-41. Oxford: Blackwell, 1986]
- Blomme, Henny. "The Completeness of Kant's Metaphysical Exposition of Space." *Kant-Studien* 103, (2012): 139-162.
- . "Können wir den ursprünglichen Raum erkennen?" In *Das Leben der Vernunft*.

- Festschrift für Bernd Dörflinger zum 60. Geburtstag*, edited by D. Hünting, et al., 30-9. Berlin: De Gruyter, 2013.
- Brastberger, M.G.U. *Untersuchungen über Kants Kritik der reinen Vernunft*. Halle: Johann Jacob Gebauer, 1790.
- Bratuscheck, E.. "Kuno Fischer und Trendelenburg." *Philosophische Monatshefte*, V. Band, Sommersemester (1870): 279-323.
- Brewer, Kimberly and Watkins, Eric. "A Difficulty Still Awaits: Kant, Spinoza, and the Threat of Theological Determinism." *Kant-Studien* 103, (2012): 163-87.
- Brittan, Gordon. "Kant's Philosophy of Mathematics." In *A Companion to Kant*, edited by Graham Bird, 222-35. Malden: Blackwell Press, 2005.
- Buroker, Jill. *Space and Incongruence*. Dordrecht: D. Reidel, 1981.
- Caird, Edward. *The Critical Philosophy of Immanuel Kant*. Glasgow: Maclehose & Sons, 1889.
- Callanan, John. "Kant on Nativism, Scepticism and Necessity." *Kantian Review* 18, no. 1 (2013): 1-27.
- Cameron, Ross. "On the Source of Necessity." In *Modality: Metaphysics, Logic, and Epistemology*, edited by Robert Hale and Aviv Hoffman, 137-52. New York: Oxford University Press, 2010.
- Carson, Emily. "Kant on Intuition in Geometry." *Canadian Journal of Philosophy* 27, (1997): 489-512.
- Cheselden, William. "An Account of some Observations made by a young Gentleman, who was born blind, or lost his Sight so early, that he had no Remembrance of ever having seen, and was couch'd between 13 and 14 Years of Age." *Philosophical Transactions* 402,

(1728): 447–450.

Chignell, Andrew. “Belief in Kant.” *Philosophical Review* 116, (2007): 323-60.

———. “Kant, Real Possibility, and the Threat of Spinoza.” *Mind* 121, (2012): 635-75.

———. “Real Repugnance and Belief about Things-in-Themselves: A Problem and Kant's Three Solutions.” In *Kant's Moral Metaphysics*, edited by James Krueger and Benjamin Lipscomb, 177-209. Berlin: DeGruyter, 2010.

Cohen, Hermann. *Kants Theorie der Erfahrung*. Berlin: Ferd. Dümmler, 1871.

———. “Zur Controverse zwischen Trendelenburg und Kuno Fischer.” In *Hermann Cohens Schriften zur Philosophie und Zeitgeschichte* (Vol. 1). Edited by Albert Görland and Ernst Cassirer, 229-75. Berlin: Akademie-Verlag, 1928. [Originally published in 1871]

Degenaar, Marjolein and Lokhorst, Gert-Jan. “Molyneux's Problem.” *The Stanford Encyclopedia of Philosophy* (Fall 2011 Edition), edited by Edward N. Zalta, URL = <http://plato.stanford.edu/archives/fall2011/entries/molyneux-problem/>.

Erdmann, Benno. *Kant's Kritikismus in der ersten und in der zweiten Auflage der Kritik der reinen Vernunft*. Leipzig: Leopold Voss, 1878.

Falkenstein, Lorne. “Kant's Argument for the Non-Spatiotemporality of Things in Themselves.” *Kant-Studien* 80, (1989): 265-83.

———. *Kant's Intuitionism: A Commentary on the Transcendental Aesthetic*. Toronto: University of Toronto Press, 1996.

———. “Kant's Transcendental Aesthetic.” In *A Companion to Kant*, edited by Graham Bird, 140-53. Malden: Blackwell University Press, 2005.

Fischer, Kuno. *Geschichte der neuern Philosophie: Kants Vernunftkritik und deren Entstehung*

- (Dritter Band). Heidelberg: Friedrich Bassermann, 1869.
- . *Kant's Leben und die Grundlagen seiner Lehre*. Heidelberg: Carl Winter, 1906.
- . *Logik und Metaphysik oder Wissenschaftslehre: Lehrbuch für akademische Vorlesungen*. Stuttgart: Scheitlin's Verlagshandlung, 1852.
- . *System der Logik und Metaphysik: Zweite völlig umgearbeitete Auflage*. Heidelberg: Friedrich Bassermann, 1865.
- Franks, Paul. *All or Nothing*. Cambridge: Harvard University Press, 2005.
- Friedman, Michael. *Kant and the Exact Sciences*. Cambridge: Harvard University Press, 1992.
- Gaarder, Jostein. *Sophie's World: A Novel about the History of Philosophy*, translated by Paulette Møller. New York: Berkley Books, 1994.
- Gardener, Sebastian. *Kant and the Critique of Pure Reason*. New York: Routledge, 1999.
- Garnett, Christopher. *The Kantian Philosophy of Space*. New York: Columbia University Press, 1939.
- Gesang, Bernward. "H.A. Pistorius: Ein unbekannter Kritiker Kants." *Archiv für Geschichte der Philosophie* 80, (1998): 97-108.
- Grapengiesser, C.. *Kant's Lehre von Raum und Zeit; Kuno Fischer und Adolf Trendelenburg*. Jena: Friedrich Mauke, 1870.
- Guyer, Paul. *Kant and the Claims of Knowledge*. New York: Cambridge University Press, 1987.
- Hale, Robert. "The Source of Necessity." *Philosophical Perspectives* 16, (2002): 299-319.
- Hanks, Peter. "A Dilemma about Necessity." *Erkenntnis* 68, no.1 (2007): 129-48.
- Hartmann, Eduard. *Kritische Grundlegung des Transcendentalen Realismus: Eine Sichtung and Fortbildung der erkenntnistheoretischen Principien Kant's*. In *Eduard von Hartmann's*

- Ausgewählte Werke* (Band I.). Leipzig: Wilhelm Friedrich, 1885.
- Hartung, Gerald and Köhnke, Klaus, eds. *Friedrich Adolf Trendelenburgs Wirkung*. Eutin: Eutiner Landesbibliothek, 2006.
- Hatfield, Gary. *The Natural and the Normative: Theories of Spatial Perception from Kant to Helmholtz*. Cambridge: MIT Press, 1990.
- Heidegger, Martin. *Kant and the Problem of Metaphysics*, trans. Richard Taft. Bloomington: Indiana University Press, 1997 (originally published in 1929).
- Herbart, J.F. *Allgemeine Metaphysik: Zweyter, systematischer Theil*. Königsberg: 1829.
- Herissone-Kelly, Peter. "The Transcendental Ideality of Space and the Neglected Alternative." *Kant-Studien* 98, (2007): 269-82.
- Hintikka, Jaakko. "On Kant's Notion of Intuition (Anschauung)." In *The First Critique: Reflections on Kant's Critique of Pure Reason*, edited by Terence Penelhum and J.J. MacIntosh, 38-51. Belmont: Wadsworth, 1969.
- Hogan, Desmond. "How to Know Unknowable Things in Themselves." *Nous* 43 (2009): 49-63.
- . "Three Kinds of Rationalism and the Non-Spatiality of Things in Themselves." *Journal of the History of Philosophy* 47, no.3 (2009): 355-82.
- Huemer, Michael. *Ethical Intuitionism*. New York: Macmillan, 2005.
- Insole, Christopher. *Kant and the Creation of Freedom*. New York: Oxford University Press, 2013.
- . "Kant's Transcendental Idealism, Freedom, and the Divine Mind." *Modern Theology* 27, (2011): 608-38.
- Jakob, L.H. *Prüfung der Mendelssohnschen Morgenstunden*. Leipzig: Johann Samuel Heinsius,

1788.

Jenkins, Scott. "Hegel on Space: A Critique of Kant's Transcendental Philosophy." *Inquiry* 53, (2010): 326-55.

Kain, Patrick. "The Development of Kant's Conception of Divine Freedom." In *Leibniz and Kant*, edited by Brandon Look. New York: Oxford University Press, forthcoming.

———. "Practical Cognition, Intuition, and the Fact of Reason." In *Kant's Moral Metaphysics*, edited by James Krueger and Benjamin Lipscomb, 210-30. Berlin: DeGruyter, 2010.

Kant, Immanuel. *Cambridge Edition of the Complete Works of Immanuel Kant*. Edited by Paul Guyer and Allen Wood. New York: Cambridge University Press, 1998-.

———. *Kants gesammelte Schriften*. Edited by the Berlin-Brandenburg Academy of Sciences. Berlin: Walter de Gruyter, 1900-. [Ak]

———. *Die philosophischen Hauptvorlesungen Immanuel Kants*. Edited by Arnold Kowalewski. München and Leipzig: Rösl & Cie, 1924.

Kanterian, Edward. "The Ideality of Space and Time: Trendelenburg Versus Kant, Fischer, and Bird." *Kantian Review* 18, (2013): 263-88.

Käufer, Stephan. "Hegel to Frege: Concepts and Conceptual Content in Nineteenth-Century Logic." *History of Philosophy Quarterly* 22, (2005): 259-80.

Kemp Smith, Norman. *A Commentary to Kant's 'Critique of Pure Reason.'* London: Macmillan and Co., 1918. [Commentary]

Kitcher, Patricia. *Kant's Transcendental Psychology*. New York: Oxford University Press, 1990.

———. "The Trendelenburg Objection; A Century of Misunderstanding Kant's Rejection of Metaphysics." *Akten des IX. Internationalen Kant-Kongresses* 2, Sektion IV (2001):

599-608.

Köhnke, Klaus. *Entstehung und Aufstieg des Neukantianismus*. Frankfurt a.M.: Suhrkamp, 1986.

———. *The Rise of Neo-Kantianism*, translated by R.J. Hollingdale. New York: Cambridge University Press, 1991.

Lachmann, Hans-Jürgen. “Über den Anfang der Logik und die Logik des Anfangs – Anmerkungen zu Trendelenburgs Hegelkritik.” In *Friedrich Adolf Trendelenburgs Wirkung*, edited by Gerald Hartung and Klaus Köhnke, 13-42. Eutin: Eutiner Landesbibliothek, 2006.

Landau, Albert. *Rezensionen zur Kantischen Philosophie*. Bebra: A. Landau, 1991.

Langton, Rae. *Kantian Humility: Our Ignorance of Things in Themselves*. New York: Oxford University Press, 1998.

Leibniz, G.W. *Leibniz: Philosophical Writings*, edited by G.H.R Parkinson and translated by Mary Morris and Parkinson. New York: Dent, 1973.

———. *Philosophical Essays*, edited by Roger Ariew and Daniel Garber. Indianapolis: Hackett, 1989

———. *Philosophical Papers and Letters*, edited by Leroy Loemker. Dordrecht: Kluwer, 1989.

Leibniz, G.W. and Arnauld, Antoine. *The Leibniz-Arnauld Correspondence*, edited by H.T. Mason. New York: Manchester University Press, 1967.

Leibniz, G.W. and Clarke, Samuel. *Leibniz and Clarke: Correspondence*, edited by Roger Ariew. Indianapolis: Hackett, 2000.

Longuenesse, Beatrice. *Kant and the Capacity to Judge*. Translated by Charles Wolfe. Princeton: Princeton University Press, 1998.

- Maass, J.G.E. "Über die transscendentale Aesthetik." *Philosophisches Magazin* 1, 2. Stück (1788), 117-49.
- Melnick, Arthur. *Space, Time, and Thought in Kant*. Dordrecht: Kluwer, 1989.
- McLear, Colin. "Two Kinds of Unity in the *Critique of Pure Reason*," *Journal of the History of Philosophy* (forthcoming).
- Merritt, Melissa. "Kant on the Transcendental Deduction of Space and Time: an Essay on the Philosophical Resources of the Transcendental Aesthetic." *Kantian Review* 14-2, (2010): 1-37.
- Messina, James. "Kant's Hidden Ontology of Space." PhD diss., University of California, San Diego, 2011.
- Moore, G.E. *Some Main Problems of Philosophy*. New York: Macmillan, 1953.
- Morris, George. "Vera on Trendelenburg." *Journal of Speculative Philosophy* VIII, (1874): 92-4.
- Parthey, G.C.F. *Die Mitarbeiter an Friedrich Nicolai's Allgemeiner Deutscher Bibliothek*. Berlin: Nicolaische Buchhandlung, 1842.
- Paton, H.J. *Kant's Metaphysic of Experience* (Vol. 1). London: George Allen & Unwin, 1936.
- Patton, Lydia. "The Paradox of Infinite Given Magnitude: Why Kantian Epistemology Needs Metaphysical Space." *Kant-Studien* 102, (2011): 273-289.
- Pistorius, H.A. "Erläuterung über des Herrn Professor Kant Kritik der reinen Vernunft von Joh. Schultze, Königl. Preußischem Hofprediger. Königsberg, bey Dengel, 1784. 8. 254 Seiten." *Allgemeine deutsche Bibliothek* 66 (1786): 92-123. [Reprinted in Gesang, *Kants vergessener Rezensent*, 3-38 and partially translated in Sassen, *Kant's Early Critics*, 93-105] ["Schultze Review"]

- . “Grundlegung zur Metaphysik der Sitten von Immanuel Kant. Riga 1785.” *Allgemeine Deutsche Bibliothek* 66 (1786), 447-63. [Reprinted in *Kants vergessener Rezensent*, 26-38]
- . *Kants vergessener Rezensent*, edited by Bernward Gesang. Hamburg: Felix Meiner Verlag, 2007.
- . “Prolegomena zu einer jeden künftigen Metaphysik die als Wissenschaft wird auftreten können. Von Immanuel Kant. Riga bey Hartknoch. 1783. 8. 222 Seiten.” *Allgemeine deutsche Bibliothek* 59 (1784): 322-55. [Reprinted in Landau, *Rezensionen zur Kantischen Philosophie*, 85-108]
- . “Prüfung der Mendelssohnschen Morgenstunden, oder aller spekulativen Beweise für das Daseyn Gottes in Vorlesungen von Ludwig Heinrich Jakob, Doctor der Philosophie in Halle. Nebst einer Abhandlung vom Herrn Professor Kant. Leipzig, bey Heinsius. 1786. 334 S. 8.” *Allgemeine deutsche Bibliothek* 82, (1788): 427-470. [Reprinted in *Kants vergessener Rezensent*, 39-71] [“Jakob Review”]
- . “Schmid, Karl Christ. Erh. Kritik der reinen Vernunft im Grundrisse. Zweyte Auflage; Schmid, Wörterbuch zum leichtern Gebrauch der Kantischen Schriften, 2te Aufl.” *Allgemeine deutsche Bibliothek* 88, (1789): 104-22. [Partially translated in Sassen, *Kant's Early Critics*, 255-69]
- . “(1) Zweifel über die Kantischen Begriffe von Zeit und Raum, von Adam Weishaupt...2) Ueber die Gründe und Gewißheit der menschlichen Erkenntniß zur Prüfung der Kantischen Kritik der reinen Vernunft, von Adam Weishaupt...3) Ueber die Kantischen Anschauungen und Erscheinung von Adam Weishaupt...” *Allgemeine deutsche Bibliothek* 93, (1790): 437-58.

- Remnant, Peter and Schweitzer, Christoph E. "A New Letter by Kant." *Journal of the History of Philosophy* 3, no. 2 (1965): 243-5.
- Rogerson, Kenneth. "Kant on the Ideality of Space," *Canadian Journal of Philosophy* 18, (1988), 271-86.
- Rosefeldt, Tobias. "Subject-Dependence and Trendelenburg's Gap." In *Akten des XI. Internationalen Kant-Kongresses*, edited by Stefano Bacin, Alfredo Ferrarin, et al., 739-48. Berlin: Walter de Gruyter, 2013.
- Russell, Bertrand. *The Problems of Philosophy*. London: Oxford University Press, 1912.
- Ryan, Todd. "A New Account of Berkeley's Likeness Principle." *British Journal for the History of Philosophy* 14, (2006): 561-80.
- Sassen, Brigitte, ed. *Kant's Early Critics: The Empiricist Critique of the Theoretical Philosophy*. New York: Cambridge University Press, 2000.
- Schelling, F.W.J. *Ideen zu einer Philosophie der Natur*. In *Sämmtliche Werke (Zweiter Band)*, edited by K.F.A. Schelling. Stuttgart: J.G. Cotta, 1857. [originally published in 1797/1803]
- Schönfeld, Martin. *The Philosophy of the Young Kant*. New York: Oxford University Press, 2000.
- Schopenhauer, Arthur. *The World as Will and Representation* (two volumes), translated by E.F.J. Payne. New York: Dover, 1966.
- Scott-Taggart, M.J.. "Recent Work on the Philosophy of Kant." *American Philosophical Quarterly* 3, (1966): 171-209.
- Selle, Christian Gottlieb. "De la Realite et de l'Idealite des objets de nos connaissances." Berlin: Berlin Academy, 1792.

Senderowicz, Yaron. *The Coherence of Kant's Transcendental Idealism*. Dordrecht: Springer, 2005.

Setiya, Kieran. "Transcendental Idealism in the 'Aesthetic.'" *Philosophy and Phenomenological Research* 68, no. 1 (2004): p. 63-88.

Shabel, Lisa. "Kant's 'Argument from Geometry.'" *Journal of the History of Philosophy* 42, no. 2 (2004): 195-214.

———. "Reflections on Kant's Concept (and Intuition) of Space." *Studies in the History and Philosophy of Science* 34, (2003): 45-57.

Shapiro, Stewart. *Thinking about Mathematics*. New York: Oxford University Press, 2000.

Shapshay, Sandra. "Did Schopenhauer Neglect the 'Neglected Alternative' Objection?" *Archiv für Geschichte der Philosophie* 93, (2011): 321-48.

Simons, Peter. "Extended Simples: A Third Way Between Atoms and Gunk." *The Monist* 87, (July 2004): 371-84.

Specht, Andrew. "F.A. Trendelenburg and the Neglected Alternative." *British Journal for the History of Philosophy*, (forthcoming).

Stang, Nicholas. "Did Kant Conflate the Necessary and A Priori?" *Nous* 45, no. 3 (2011): 443-471.

———. "The Non-Identity of Appearances and Things in Themselves." *Nous*, (forthcoming).

Strawson, Peter. *The Bounds of Sense*. New York: Methuen, 1966.

Swoyer, Chris and Orilia, Francesco. "Properties." *The Stanford Encyclopedia of Philosophy* (Winter 2011 Edition), Edward N. Zalta (ed.). URL = <http://plato.stanford.edu/archives/win2011/entries/properties/>.

- Sutherland, Daniel. "The Point of Kant's Axioms of Intuition." *Pacific Philosophy Quarterly* 86, (2005): 135-59.
- Trendelenburg, Friedrich Adolf. *Kuno Fischer und sein Kant: eine Entgegnung*. Leipzig: S. Hirzel, 1869.
- . *Logische Untersuchungen*. Leipzig: S. Hirzel, 1862. [other editions in 1840 and 1870]
- . "Ueber eine Lücke in Kants Beweis von der ausschliessenden Subjectivität des Raumes und der Zeit." In *Historische Beiträge zur Philosophie* (Band III), 215-76. Berlin: G. Bethge, 1867.
- Vaihinger, Hans. *Commentar zu Kants Kritik der reinen Vernunft: Zweiter Band*. Stuttgart: Union deutsche Verlagsgesellschaft, 1892. [*Commentar II*]
- Van Cleve, James. *Problems from Kant*. New York: Oxford University Press, 1999.
- Vilkko, Risto. "Trendelenburgs Kritik der Herbartschen Logik und ihr Einfluß auf die Reform der Logik." In *Friedrich Adolf Trendelenburgs Wirkung*, edited by Gerald Hartung and Klaus Köhnke, 43-54. Eutin: Eutiner Landesbibliothek, 2006.
- Watkins, Eric. *Kant and the Metaphysics of Causality*. New York: Cambridge University Press, 2005.
- ed. *Kant's Critique of Pure Reason: Background Source Materials*. New York: Cambridge University Press, 2009. [*Background Source Materials*]
- . "Kant's Transcendental Idealism and the Categories." *History of Philosophy Quarterly* 19, no. 2 (2002): 191-215.
- Weishaupt, Adam. *Zweifel über die Kantischen Begriffe von Zeit und Raum*. Nürnberg: Grattenauerische Buchhandlung, 1788.

- Willaschek, Marcus. "Der transzendente Idealismus und die Idealität von Raum und Zeit. Eine 'lückenlose' Interpretation von Kants Beweis in der 'Transzendentalen Ästhetik.'" *Zeitschrift für philosophische Forschung* 51, h. 4 (1997): 537-564. [Eine 'lückenlose' Interpretation]
- Wilson, Holly. *Kant's Pragmatic Anthropology*. Albany: SUNY Press, 2006.
- Wilson, Kirk. "Kant on Intuition." *The Philosophical Quarterly* 25, (1975): 247-265.
- Wolff, Christian. *Vernünfftige Gedancken von Gott, der Welt, und der Seele des Menschen, auch allen Dingen überhaupt*. Halle, 1751. [partially reprinted and translated in Watkins, *Background Source Materials*, 7-53]

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