

James Messina*

Conceptual Analysis and the Essence of Space: Kant's Metaphysical Exposition Revisited

DOI 10.1515/agph-2015-0017

Abstract: I offer here an account of the methodology, historical context, and content of Kant's so-called "Metaphysical Exposition of the Concept of Space" (MECS). Drawing on Critical and pre-Critical texts, I first argue that the arguments making up the MECS rest on a kind of conceptual analysis, one that yields (analytic) knowledge of the essence of space. Next, I situate Kant's MECS in what I take to be its proper historical context: the debate between the Wolffians and Crusius about the correct analysis of the concept of space. Finally, I draw on the results of previous sections to provide a reconstruction of Kant's so-called "first apriority argument." On my reconstruction, the key premise of the argument is a claim to the effect that space grounds the possibility of the co-existence of whatever things occupy it.

"To investigate the essences of things is the business and the end of philosophy." (AA 24:115)

1 Introduction

In the Transcendental Aesthetic of the *Critique of Pure Reason*, Kant argues that space is the *a priori* form of outer intuition (call this the Form Thesis).^{1,2} Kant's

1 References to the *Critique of Pure Reason* are given according to the pagination of the first (A) and second (B) editions. In quotations I have followed *Critique of Pure Reason* (Kant 1998). References to other works by Kant are given by volume and page number of the Berlin Akademie edition (cited as AA). In quotations from Kant's pre-Critical writings I have followed *Theoretical Philosophy: 1755–1770* (Kant 1992b). In quotations from Kant's lectures on metaphysics I have followed *Lectures on Metaphysics* (Kant 1997). In quotations from Kant's lectures on logic I have followed *Lectures on Logic* (Kant 1992a). I have occasionally made some small changes to these translations.

2 The Form Thesis has received significant attention, both from historians of philosophy and philosophers whose interests are not primarily historical. For examples of the latter, see Strawson 1966 and 1959; Cassam 2005; and Evans 1980.

*Corresponding author: James Messina: Department of Philosophy, University of Wisconsin-Madison, 600 N. Park St., Madison, WI 53706; jmessina@wisc.edu

main argument for the Form Thesis begins in the section of the Aesthetic entitled the “Metaphysical Exposition of the Concept of Space” (MECS),³ where it is presented as a new answer to the hoary question “what is space?”:

Now what are space and time? Are they actual entities? 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 [...] ? (A23/B37)

As the name of the section suggests, Kant’s strategy for answering this question involves giving a “metaphysical exposition of the concept of space.” The MECS consists of four arguments, the first two of which are generally assumed to have as their immediate conclusion the claim that our representation of space is *a priori*, and the second two of which are commonly taken to have as their immediate conclusion the claim that this representation is an intuition.

There has been considerable debate about the structure of these arguments, and about the relationship between them and the ultimate conclusion of the Transcendental Aesthetic, the Form Thesis.⁴ However, little attention has been devoted to a question that is more fundamental, insofar as one’s answer to it can radically influence one’s position on the above debates: what assumptions about space is Kant beginning with here and what justifies these assumptions?

There are a number of reasons for thinking that the arguments of the MECS take some assumptions about space as their starting point. Consider first the obvious truths that (i) every argument must presuppose something or other, and (ii) if an argument is not to be circular it cannot presuppose the truth of its conclusion. If we grant that Kant’s main argument for the Form Thesis is non-circular, then the four arguments of the MECS cannot presuppose the Form Thesis. They also cannot presuppose the truth of their immediate conclusions: we have an *a priori* representation of space, and this representation is an intuition. But they must presuppose something or other.

This fact has not been lost on Kant commentators. Most take the underlying assumptions to be claims about the *representation* of space rather than claims about space itself.⁵ However, as I will show below, there are strong textual and

³ This heading is only used in the 1787 edition (the so-called B-version) of the *Critique*.

⁴ Brandt takes the Form Thesis to be an immediate conclusion of the MECS (Brandt 1998, 81–106). By contrast, many commentators think that the Form Thesis follows only, if at all, by means of further premises that are not stated until after the MECS (either in the Transcendental Exposition, the Conclusions from the Above Concepts, or both). See, for instance, Falkenstein 1995, 152; Allison 2004, 118; Guyer 1987, 348; Parsons 1992, 62–100; Hatfield 2006, 61–93; and Strawson 1966, 58 f.

⁵ For a clear affirmation of this view, see Guyer 1987, 348. See also the reconstructions of the arguments in Allison 2004, 99–112.

contextual reasons for thinking that the arguments comprising the MECS invoke propositions about *space* as premises — in fact, propositions about the *essence* of space. If this is correct, two crucial questions arise: what is the warrant for these propositions, and what exactly is their content? As I will argue, the propositions in question are justified by an analysis of the “given concept” of space. Their content is that space is essentially a framework that (i) contains many places (that is, extended regions); (ii) makes possible the co-existence⁶ of whatever things might occupy it; (iii) makes possible the mutual interaction (or community) of whatever things might occupy it; (iv) is ontologically prior to the things that might occupy it; (v) is unitary; and (vi) is infinite (that is, it contains an infinite number of places).

In order to show that the arguments of the MECS invoke such propositions as premises and that they are supposed to be justified through conceptual analysis, I will do two things. First, I will exposit Kant’s concept of a metaphysical exposition. As I will argue, a metaphysical exposition, for Kant, requires the analysis of a “given concept”, an analysis that justifies propositions describing the marks of the “given concept” being analyzed. While most commentators would presumably be willing to concede this much, I offer a novel account of the nature of this conceptual analysis, whereby (i) at least some of the marks uncovered in the analysis of a given concept correspond to essential features of the objects (or object) in the extension of the concept, (ii) propositions involving these marks contain a metaphysically substantive characterization of the object of the given concept in question, and (iii) the process of analysis that justifies propositions involving these marks makes essential use of modal intuitions (in the contemporary philosophical sense of the term, not Kant’s) whose evidential status is constrained by the results and method of pure mathematics. Such an account of conceptual analysis is at odds with the widespread view that Kant views conceptual analysis as an instrument that merely clarifies our thought (rather than yielding substantive metaphysical insights)⁷ and that functions in independence from pure mathematics.

Second, I will situate the MECS in its proper historical context: the debate among Kant’s predecessors about the proper explication of the concept of space. In addition to providing further evidence for my reading of the role (and nature) of conceptual analysis in the arguments of the MECS, this contextualization will illuminate the details of the first argument of the MECS. On one side

⁶ For the specific sense of ‘co-existence’ at issue here, see note 71.

⁷ This widespread view of Kant’s account of analysis is given a particularly clear explication and defense in Pereboom 1990, 25–45. According to Pereboom, “the idea of philosophy as an analytic discipline is simply not Kantian” (36).

of the just-mentioned debate were Christian Wolff and Alexander Baumgarten, the latter of whom explicates space as “the order of co-existent things mutually posited outside of one another.”⁸ On the other side was Christian August Crusius, who rejects the Wolffian exposition of the concept of space, instead defining space as “the possibility of the co-existence of substances next to one another.”⁹ As I will show, Kant agrees with Crusius’s criticism of the Wolffian exposition of space, and accepts Crusius’s fundamental idea that conceptual analysis reveals space to be a framework that makes possible the co-existence of the things in it. However, as one would expect, Kant does not simply accept Crusius’s account of space *in toto*. He departs from Crusius in three key respects. First, Kant takes mutual interaction (or community) to be central to the idea of space, because he regards the mutual interaction of substances as a necessary condition of their co-existence. Second, Kant denies that it is possible to immediately infer from an analysis of concepts that all existing objects without exception are in space. Third, Kant rejects Crusius’s view that space is a framework consisting of *absolute* places. Space, for Kant, consists of *relative* places.

This exploration of the nature of a metaphysical exposition and of the historical background of the MECS has two important payoffs. The first is that it puts us in a better position to reconstruct and evaluate the arguments of the MECS, as I will illustrate in the case of the first argument of the MECS. The second is that it allows us to decipher the meaning of, and basis for, some otherwise cryptic and seemingly unsubstantiated claims that Kant makes about space later in the *Critique*.

In Section 2, I argue that the arguments of the MECS rely on claims about the essence of space that are supposed to be justified by an analysis of the given concept of space. In Section 3, I situate the MECS in the context of the debate between Crusius and the Wolffians about the correct explication of the concept of space. In Section 4, I show that Kant agrees with Crusius’s basic criticism of the Wolffians and accepts Crusius’s basic idea that space, properly understood, is the ground of the possibility of the co-existence of the things that exist within space. In Section 5, I explain how Kant departs from Crusius’s exposition of space. In

⁸ *Metaphysics* § 239, 102. A partial translation of this work, along with two other works that I discuss here, Wolff’s *Rational Thoughts on God, the World and the Soul of Human Beings, Also All Things in General* (the so-called *German Metaphysics*), and Crusius’s *Sketch of the Necessary Truths of Reason*, is available in Watkins 2009. In cases where I cite passages that Watkins has translated, I give a page reference to Watkins’ translation following the title and section number of the work and a comma. I occasionally depart slightly from Watkins’ translations (where these translations are available).

⁹ *Sketch of the Necessary Truths of Reason* [*Sketch*] § 59, 152.

Section 6, I reconstruct the first apriority argument in light of this historical background. In Section 7, I conclude with some observations about the relationship between the marks of the given concept of space and Kant's Form Thesis.

2 The Argumentative Strategy of the MECS

Notwithstanding the massive attention the arguments in the MECS have received, commentators have had surprisingly little to say about what a metaphysical exposition is.¹⁰ The first place to go for an understanding of the nature of a metaphysical exposition is Kant's explanatory remark in the opening paragraph of the section:

I understand by exposition (*expositio*) the distinct [*deutliche*] (even if not exhaustive [*ausführliche*]) representation of that which belongs to a concept; but the exposition is metaphysical when it contains that which exhibits [*darstellt*] the concept as given a priori. (B37 f.)

It is clear from this passage that a metaphysical exposition is a special type of exposition: it is an exposition of a concept undertaken with the aim of showing that the concept has an *a priori* origin. An exposition, in turn, is “the distinct (even if not exhaustive) representation of that which belongs to a concept” (B37 f.).

Kant sheds further light on what he means by an ‘exposition’ in the Discipline of Pure Reason in Dogmatic Use, the section of the *Critique* where he contrasts the method proper to the philosopher and the method proper to the mathematician. By Kant's lights, both the philosopher and the mathematician are in the business of defining concepts, but they go about it in entirely different ways:

Philosophical definitions come about only as expositions of given concepts, but mathematical ones as constructions of concepts that are originally made, thus the former come about only analytically through analysis [*Zergliederung*] (the completeness of which is never apodictically certain), while the latter come about synthetically, and therefore make the concept itself, while the former only explain it. (A730/B758)

10 One notable exception is Falkenstein (1995, 148 f.), who recognizes and stresses that the MECS relies on a kind of conceptual analysis. My account of the method of the MECS is similar to his in certain respects, though I disagree with him about the results of Kant's conceptual analysis and how they bear on the ontological question “what is space?”. Whereas Falkenstein thinks that the MECS has no immediate implications for the ontology of space (148), and claims that conceptual analysis yields only a relatively trivial characterization of space (“it is a form of ordering” [153]), in my view, Kant squeezes some significant ontological conclusions out of conceptual analysis.

Whereas the mathematician *begins* with the definition of a concept that she herself makes (for example, the concept of a triangle), the philosopher must seek out the definition of a concept that is *given*. As an initial formulation, a given concept is one we do not ourselves make up or construct. (As I will suggest below, given concepts can be further defined in terms of the distinctive sort of knowledge that emerges from their analysis: analytic knowledge of the essential features of the thing or things that fall under the concept. So understood, whether a concept of 'X' is given or made is not a contingent matter: concepts that are given *cannot* be made and vice versa.) Because the philosopher is working with *given* concepts, she is not free like the mathematician to stipulate their meanings; rather, she must *exposit* them. As Kant writes in the *Jäsche Logic*, "Exposition occurs only with given concepts, then, which are thereby made distinct; it is thereby distinct from declaration, which is a distinct representation of concepts that are made" (AA 9:143). Exposition, for Kant, is the process of making a given concept distinct.¹¹ So understood, exposition rests on analysis [*Zergliederung*]: "The expounding of a concept consists in the connected (successive) representation of its marks, insofar as these are found through analysis" (AA 9:143). To analyze a given concept is to uncover and clearly represent its marks, which for Kant are features by which we cognize the object of the concept and distinguish it from other things (AA 9:58). What distinguishes an analysis from an exposition is that, in an exposition, marks found through analysis are represented successively (or *presented* successively, if one is explaining the concept to someone else). The result of the process of exposition is a distinct representation of the given concept, that is, a distinct concept.¹²

It is important to realize that an exposition, strictly speaking, is not itself a definition. As Kant explains in the Discipline of Pure Reason in Dogmatic Use, a definition is not just a successive representation (or presentation) of the marks of a concept; it is also an exhaustive [*ausführliche*] representation of those marks (A727/B755).¹³ In order to define a concept, one must successively represent all of the marks by which we cognize the object of the concept. This in turn requires an exhaustive analysis. Because the philosopher can never be certain that she has exhaustively analyzed a given concept, she can never be certain that she has provided a complete definition.¹⁴ It is for this reason that Kant recommends

¹¹ Cf. AA 16:578.

¹² Cf. AA 16:585.

¹³ Cf. AA 16:578 and AA 9:140–143.

¹⁴ In this respect, the philosopher is at a disadvantage with respect to the mathematician. Since the mathematician herself decides what marks a generated concept has, she can be confident of the completeness of her definition.

that philosophers describe their explications of concepts as ‘expositions’ rather than ‘definitions.’ Whereas the latter requires an exhaustive conceptual analysis, the former does not. Nevertheless, Kant says, even a partial analysis can be very useful. He writes: “we can often infer much from some marks that we have drawn from an as of yet uncompleted analysis before we have arrived at a complete exposition, i.e., a definition” (A730/B758).

Kant’s theory of exposition has several important implications for the argumentative strategy of the MECS. First, Kant’s starting point must be a given concept, since only given concepts are candidates for exposition. In light of the attention it receives in this section, the given concept in question can only be the given concept of *space*. Thus, in the MECS Kant is not trying to *prove* that we have a given concept of space; he is assuming that we do.¹⁵ Though this may appear to be inconsistent with Kant’s claim that “the original representation of space is an *a priori* intuition, not a concept” (B40; Kant’s emphasis), one way (though not the only way)¹⁶ of reconciling these claims is to say that we have a given concept of space but this concept is itself formed from another given representation.¹⁷ In the 3rd and 4th arguments of the MECS, Kant will show that the latter representation is a pure intuition. (Later on in the Aesthetic, Kant will argue that the *object* of this pure intuition – the unitary spatial framework within which all empirical objects of outer intuition are given – has no existence independent of our pure intuition.)

The second implication that Kant’s theory of exposition has for the argumentative strategy of the MECS is the following: these arguments rely on knowledge of the marks of the given concept of space. Indeed, this much follows from Kant’s

¹⁵ This is not to say that Kant does not think we also have generated concepts of spaces; he thinks we do (‘triangle’ is one example). But *generated* concepts of space are not at issue in the MECS. This is evidenced by a 1789 remark about the task of the MECS: “Metaphysics must show how one could have the representation of space; but geometry teaches how one could describe a space, that is, how one could exhibit it in representation a priori (not through sketching [*Zeichnung*]). In the former, space is considered as it is given, before all determination of it according to a concept of the object; in the latter, a space is generated [*gemacht*]” (AA 20:419).

¹⁶ Another possibility would be to say that when Kant talks of our having a given concept of space, he is using ‘concept’ in a loose sense such that it simply means ‘representation,’ whereas when Kant says that “our original representation of space is an a priori intuition, rather than a concept,” he is using ‘concept’ in the strict sense such that it picks out a particular class of (discursive) representations. Readers who find the idea that we have a concept of space in the strict sense objectionable are free to adopt this alternative reading and thus to substitute ‘representation’ for ‘concept’ in phrases like “analysis of the given concept of space.” Such a reading will require tolerance for the idea that *intuitions* have marks and can be analyzed. However, a persuasive case is made for the claim that intuitions have marks in Smit 2000.

¹⁷ Alternatively, if one takes the interpretive route laid out in the prior footnote, then the given concept of space is not formed from our *a priori* intuition of space; they are the same thing.

characterization of an exposition as “the distinct (even if not exhaustive) representation of that which belongs to a concept” (B37). What belong to the given concept of space are, in Kant’s language, *its marks*. To represent these marks correctly after having gone through the right kind of process is to have a certain kind of knowledge.¹⁸

Third, Kant’s method for finding these marks must be one of analysis. As we have seen, this is the only method for determining the marks of a given concept. It is because his analysis of the concept of space is only partial that Kant does not claim to be giving us an “exhaustive” concept of space in this section, but only a distinct one (B37 f.). Analysis, then, is the relevant process for generating the knowledge mentioned above. (As we will see below, there is a particular kind of analysis at issue in the MECS.)

All of the above follows from the fact that a metaphysical exposition is a type of *exposition*.¹⁹ What about the *metaphysical* aspect of a metaphysical expo-

18 According to the taxonomy of the *Critique*, knowledge attained through conceptual analysis is analytic knowledge. As Kant says over and over again, this knowledge is not ampliative, that is, it does not go beyond what is contained in our (given) concepts. But this does not mean that analytic knowledge cannot be extremely useful. For statements to this effect, see A6/B10, A10/B13 f., and AA 24:916.

19 If what I say about the nature of an exposition is correct, then the Transcendental Exposition of the Concept of Space (TECS) also rests on analytic knowledge of the given concept of space. One way of thinking about the difference between the MECS and the TECS is that the latter takes as its starting point something that was shown in the MECS by utilizing analytic knowledge of space: namely, we have a pure intuition of space. In particular, the TECS shows how construction of objects in pure intuition yields synthetic *a priori* knowledge. Such a position, which fits nicely with Kant’s claim in the *Prolegomena* that the *Critique* involves a synthetic or progressive method (AA 4:274), is defended by Shabel (2004, 195–215). What I would add to Shabel’s novel and illuminating account is that the global features of the space of which we have a pure intuition — features like infinitude and unity — are characteristics that are known analytically on the basis of the conceptual analysis deployed in the MECS. The synthetic *a priori* geometric knowledge that we attain by means of constructing objects in pure intuition involves what we might call *local* spatial properties of objects — it includes knowledge of figures, magnitudes, and spatial relations of objects — rather than global properties of space, like infinitude and unity. Kant seems to have principled reasons for denying that we could have synthetic *a priori* knowledge of such things: synthetic *a priori* geometric knowledge requires construction of concepts in pure intuition, but the concepts of the infinitude and global unity of space do not admit of construction. (In the *Axioms of Intuition*, the synthesis involved in geometric construction is described as a successive synthesis that produces extended magnitudes; such a synthesis could not produce the unity of space — which is the unity of a whole that precedes its parts, not of an extended magnitude — and since a temporally successive synthesis can never be completed, could not produce an infinite magnitude like the whole of space.) Instead, these features of space are background conditions on all geometric constructions.

sition? As we have seen, an exposition “is metaphysical when it contains that which presents [*darstellt*] the concept as given *a priori*” (B37–8). In other words, a metaphysical exposition has the task of showing that our given concept is *given a priori*. This fits with the standard view about the conclusions of the four arguments of the MECS. According to this reading, the first two arguments have as their immediate conclusion the claim that we have an *a priori* representation of space, whereas the second two arguments have as their immediate conclusion the claim that this representation is an intuition. If these are indeed Kant’s conclusions, then the arguments in the MECS can be described as inferences from the marks of the given concept of space to conclusions regarding the origin of this concept. As such, the arguments presuppose some (warranted) claims about these marks. Such an interpretation fits well with Kant’s claim that “we can infer much from some marks that have been drawn from an as of yet uncompleted analysis” (A730/B758).²⁰

This general argumentative strategy is not unusual for Kant. At various points in the *Critique*, Kant relies on the results of a partial analysis of the given concept of ‘cause’ for a quick proof of the claim that the concept of a cause is *a priori*.²¹ In my interpretation of the MECS, he is doing much the same thing with the given concept of space, with the key difference being that he is concerned to show not merely that this concept has an *a priori* origin but that its origin is an *a priori* intuition. Though one might be skeptical that the concept of space can be analyzed, Kant is actually quite explicit about this in a number of pre-Critical texts.²² He not only says the concept can be analyzed, he begins to carry out the analysis. These texts provide valuable insight into the epistemological and metaphysical status of the basic assumptions underlying the MECS.

Particularly noteworthy in this regard is the *Inquiry Concerning the Distinctness of Natural Theology and Morality* [1764]. Though this was written many years before the *Critique*, it cannot be written-off as irrelevant to the MECS since the doctrine of philosophical method (including the theory of exposition) that Kant offers in the Doctrine of Method of the *Critique* and puts into practice in the MECS is largely taken from the *Inquiry*. Moreover, we find unmistakable echoes of the *Inquiry*’s account of the role and nature of analysis in philosophy in transcripts of the lectures on logic that Kant gave during the 1780s.²³ In his discussion of the difference between mathematics and metaphysics in the *Inquiry*, Kant writes:

²⁰ Cf. AA 24:916.

²¹ See, for instance, B5 and A91/B123–B124.

²² In addition to the texts discussed below, see *The Only Possible Argument* (AA 2:71).

²³ See, in particular, AA 24:923.

But the most important business of higher philosophy consists in seeking out these indemonstrable fundamental truths; and the discovery of such truths will never cease as long as cognition of such a kind as this continues to grow. For, no matter what the object may be, those marks which the understanding initially and immediately perceives in the object constitute the *data* for exactly the same number of indemonstrable propositions, which then form the foundation on the basis of which definitions can then be drawn up. Before I set out on the task of defining what space is, I clearly see that, since this concept is given to me, I must first of all, by analyzing it, seek out those marks which are initially and immediately thought in that concept. Adopting this approach, I notice that there is a manifold in space of which the parts are outside of one another [*darin vieles außerhalb einander sei*]. I notice that this manifold is not constituted by substances, for the cognition I wish to acquire relates not to things in space but to space itself; and I notice that space can only have three dimensions etc. Propositions such as these can well be explained if they are examined *in concreto* so that they can come to be cognized intuitively; but they can never be proved. For on what basis could such a proof be constructed, granted that these propositions constitute the first and the simplest thoughts I can have of my object, when I first call it to mind. (AA 2:281)

The view presented here is remarkable in at least two respects. The first concerns the ontological import of propositions that describe marks of the concept of space (which Kant significantly describes as “given to me”). Kant provides several examples of such propositions: (i) space consists of many distinct places (these are the “parts” of space); (ii) these places are not constituted by substances (and/or their relations); and (iii) space has three dimensions.²⁴ Interestingly, Kant vacillates here between talk of the marks of the given concept of space and talk of the features of space itself; he is apparently able to move back and forth in this way because the marks of the given concept of space — or at least these particular marks — are essential features of the object in the extension of the concept <space>. In other words, (i)–(iii) are necessarily true *de re*. To use language that Kant uses elsewhere, they capture (parts of) the “real essence” of the concept of space, rather than the “logical essence” of the concept.²⁵ In this respect, the con-

²⁴ By the time of the first *Critique*, Kant has changed his mind about the status of the claim that space is three-dimensional. Whereas in the *Inquiry*, he regards it as something discovered by analysis, and thus thinks that the proposition is analytically true, in the *Critical period*, he claims that it is discovered through synthesis, and thus holds that our knowledge of it is synthetic *a priori* (see, e.g., B 41).

²⁵ See, for example, AA 24:116 f., AA 9:61 and AA 11:37 (where Kant significantly speaks of space as having a real essence). Logical essences seem to be like Lockean nominal essences: they vary from person to person (some people ascribe more marks to a concept than others); they, and the marks included in them, do not necessarily apply *de re* to the objects in their extensions; and, finally, one can understand the full logical essence of a concept (that is, have a full nominal definition) without having any insight into the real possibility of its corresponding objects and

ceptual analysis described in the *Inquiry* has ontological import, though, as we will see, it does not entail the existence of anything in the extension of the given concept under scrutiny.

The second noteworthy aspect of Kant's view of conceptual analysis in the *Inquiry* is the epistemic status of propositions that describe marks of the given concept of space. According to Kant, such claims are indemonstrable, insofar as they cannot be proven from any more basic propositions about space, and foundational, insofar as they form the basis for an (eventual) definition of the concept of space. Assuming the truth of such a proposition, an interlocutor who tried to assert that space has five dimensions, or that the places in it are constituted by substances, could be reasonably dismissed as either making a mistake about the concept or as changing the subject from space to something else. Because of their fundamental status, these claims serve as a check during the search for a complete definition of space; no account of space worth the name can conflict with them.²⁶

At this point, a very natural worry arises with regard to Kant's account of conceptual analysis: who is to say what marks are and are not contained in the given concept of space? This matter is particularly pressing, given that conceptual analysis can apparently establish conclusions not just about how we use a given concept but about the essential characteristics that an entity falling under the concept would have were it to exist. Perhaps no one would balk at the claim that space contains many places. But a relationist about space (like Leibniz and his followers) might well be inclined to balk at the claim that places in space could exist without existent substances standing in relations. And many would balk at the claim that space is *essentially* three dimensional.

their qualities. For Kant's real essences, the opposite is true, *mutatis mutandis*. Kant does not think that every analysis of a given concept yields information about its real essence. However, my suggestion is that an analysis of the sort described later in this section – one that relies on modal intuitions about objects in the extension of the concept – does yield information about the real essence. This, of course, is compatible with claiming that such an analysis could not provide access to the entire real essence and thus the basis for a real definition. Though one might object that texts like AA 9:61 show that Kant thinks that we cannot have knowledge of any aspect of a real essence, I think that such passages can more naturally be read as claiming that such knowledge has no place in pure logic, which abstracts from the relation of concepts to objects. Such a reading is made more plausible by the fact that Kant explicitly countenances knowledge of real essences (including, significantly, that of body, which is the target of the exposition undertaken in the *Metaphysical Foundations of Natural Science*); see here AA 24:118.

²⁶ For a similar characterization of this particular role of indemonstrable propositions, see Henrich 1967, 29 f. See also Koriako 1999, 34 f.

Given this obvious objection to such an account of conceptual analysis, one might expect that Kant would abandon it before the *Inaugural Dissertation* [1770]. But he does not. We find him espousing a very similar view in his famous 1772 letter to Marcus Herz, which has come to be known as the letter in which Kant articulates the question (how do *a priori* concepts have objective validity?) that the transcendental deduction is designed to answer, though Kant also takes up other matters in this letter. In addressing Johann Schultz's objection that in the *Inaugural Dissertation* Kant had failed to consider the possibility that space is both a representation and a feature of things-in-themselves, in particular, a set of relations among them (as on the Leibnizian account), Kant writes:

The clear answer is this: space was said to be non-objective and thus also non-intellectual, because when we completely analyze [*zergliedern*] the representation, we think therein neither a representation of things (which could only be in a space), nor an actual connection [*wirkliche Verknüpfung*] (which, anyway, could not occur without things), namely, no activities [*Wirkungen*], no relations as grounds; thus we have no representation of something actual that inheres in things, and thus it is nothing objective. (AA 10:133 f.)

Kant appears to be saying that analysis of the representation of space is sufficient to show that it is not constituted by relations (including causal or quasi-causal relations) among actual things. Just as he had done in the *Inquiry*, he is ruling out a certain kind of relationist account of space (where space depends for its existence on actually existing substances and their relations) on the basis of conceptual analysis.

We have a puzzle here. On the one hand, at a comparatively late stage of his career, Kant seems to be committed to a view of conceptual analysis according to which propositions describing the marks of a given concept have a distinctive epistemological status (they are indemonstrable and yet foundational bits of knowledge) and have (in some cases, quite substantive) ontological import. On the other hand, this account appears hopelessly naïve and connected with precisely the sort of dogmatism that Kant wishes to abandon.

My suggestion is that Kant's account of conceptual analysis in the *Inquiry* is not as naïve and dogmatic as it initially appears. One reason for thinking this is that, in an important text published just a year earlier, Kant himself raises the worry mentioned above – namely, that there is no real constraint on the process of analyzing a given concept. And he applies this in particular to the concept of space, whose explication he takes to be one of the key tasks of metaphysics. Kant writes in *Negative Magnitudes*:

Metaphysics seeks to discover the nature of space and establish the ultimate principles, in terms of which its possibility can be understood. Now, nothing could be of more use in such an undertaking than the capacity to acquire reliably established data from some source or other, with a view to using them as the foundation of one's reflection. Geometry furnishes a number of such data relating to the most universal properties of space, for example, that space does not consist of simple parts. And yet these data are ignored and one relies simply on one's ambiguous consciousness of the concept, which is thought in an entirely abstract fashion. If it should then happen that speculation, conducted in accordance with this procedure, should fail to agree with the propositions of mathematics, then an attempt is made to save the artificially contrived concept by raising a specious objection against this science, and claiming that its fundamental concepts have not been derived from the true nature of space at all, but arbitrarily invented. (AA 2:168)

This passage has implications for how we should understand the sort of conceptual analysis at issue in the *Inquiry*, and in turn, in the MECS. One thing it makes clear is that propositions purporting to describe the marks of the given concept of space (for example, the denial of the infinite divisibility of space) are not to be taken seriously if they conflict with either the specific results or the general method of geometry. Another thing suggested by this passage is that one's consciousness of the marks of a given concept is more ambiguous (and correspondingly, less reliable) the more one represents the concept and its marks abstractly as opposed to imagining it concretely: that is, as instantiated by a particular object. Kant emphasizes the importance of concreteness in a passage from the *Inquiry* quoted above: "Propositions such as these can well be explained if they are examined in concreto so that they can come to be cognized intuitively; but they can never be proved" (AA 2:281).

I think we can make sense of the importance of imagining a concrete object as instantiating the concept when we consider that given concepts, at least as Kant seems to understand them, are essential to the things (or, in the case of space, *thing*) in their extension: instances of the given concept of A are essentially A's.²⁷

²⁷ One reason for thinking this is that, otherwise, it remains mysterious why in the *Inquiry* and other places Kant thinks he is justified in sliding back and forth between the marks of the given concept of space and features of space. It would also be mysterious why Kant uses essentialist language in his discussion of the given concept of space in the MECS (for example, space is "essentially single" (B39), and why he thinks he can immediately draw metaphysical conclusions from conceptual analysis, as we have seen him do in AA 10:133 f. (quoted above). Another reason concerns the examples of given concepts that Kant mentions in the first *Critique*: in addition to space, he mentions other *a priori* concepts like reality, substance, force, cause, right, and equity, as well as empirical concepts of natural kinds like gold and water (see A721–729/B749–757). Consider also the given empirical concept that Kant is concerned to analyze in the *Metaphysical Foundations of Natural Science*: the concept of body or matter (AA 4.469–473). It is

As a result of this, we can determine what marks belong to the real essence of the concept of space (that is, what claims about space are true with *de re* necessity) by considering what features space could and could not possibly lack. In this respect, the sort of conceptual analysis at issue here relies on what we might call modal intuitions – intuitions (in the contemporary sense, not in Kant’s special technical sense) about what is and is not possible with respect to an instance of a given concept.²⁸ Per the first point that we extracted from the *Negative Magnitudes* essay, the propositions that these intuitions ground are fundamental, and yet subject to the constraint that they not be in conflict with the results and method of geometry (and perhaps the mathematical sciences in general). Assuming a proposition about a given concept has been arrived at through this sort of analysis, and assuming that it is consistent with other such propositions and with particular established claims of geometry as well as with its method, one’s belief in the proposition amounts to knowledge.

Now that we have a better understanding of the nature of a metaphysical exposition and of the particular sort of conceptual analysis that figures into it, we can return to the MECS. Given that they are part of a metaphysical exposition, the four arguments of the MECS rest on various propositions describing the marks of the given concept of space. These propositions are grounded on a particular sort of analysis – one that invokes modal intuitions about space – and express both marks of the concept and essential features of space. Confirmation for these points comes, first, from Kant’s apparent reliance on modal intuitions in the second argument (“One can never represent that there is no space, though one can very well think that there are no objects to be encountered in it” (A24–25/B38)) and, second, from the fact that Kant employs the language of essence in the third argument of the MECS. Space, he says, is “*essentially [wesentlich] single*” (B39).

plausible to think that anything that falls under one of these concepts in the actual world would have to fall under it in every possible world in which it exists. For example, if *x* is an instance of force or an instance of a causal power in the actual world, then *x* will not lack this feature in other worlds in which it exists – no more than an *x* that is a human in the actual world could be a non-human in other possible worlds. Such properties are essential to their bearers. The same holds, I think, for given empirical concepts like <red>: for someone like Kant, who regards color as a secondary quality, the extension of <red> consists either of various sensations which have the quality of redness in all worlds in which they exist, or of some power to produce red sensations, a power that an object has in all worlds in which it exists. By contrast, complex empirical concepts (e.g., being a table) that do not correspond to natural kinds are “made” concepts and thus not such that they are essential to their bearers.

²⁸ For a contemporary defense of the evidential value of such modal intuitions, see Bealer 1996, 121–142.

So far, what I have been claiming is that the arguments of the MECS are arguments whose conclusions are claims about the epistemic status of our concept of space (in particular, its being rooted in an *a priori* intuition) and whose premises include claims about the essence of space. These premises correspond to the “fundamental, indemonstrable propositions” of the *Inquiry*. As we have seen, Kant thinks that the results of analyzing a given concept have to be consistent with the particular results of geometry as well as with its method. The latter point implies that the results of conceptual analysis have to square with the epistemic status of geometrical propositions (in particular, their apriority and synthetcity). This explains why the MECS is followed by a transcendental exposition of the concept of space: Kant is showing in the latter section that the specific claims he made about space in the MECS, as well as the conclusions he derived from them (namely, that we have an *a priori* intuition of space) are consistent with the results and method of geometry. Until Kant has shown the consistency of the results of his analysis with geometry, his results are tentative. What this means is that the MECS is not meant to be an entirely self-standing argument for the claim that our original representation of space is an *a priori* intuition.

But what specific claims about space is Kant invoking in the arguments of the MECS? Matters are reasonably clear in the third argument – the essential unity of space is at issue – and Kant’s fourth argument, where the essential infinitude of space is the starting point of Kant’s argument. Matters are also tolerably clear in the case of the second argument: it is not essential to space that there be objects in it; in this respect, space is essentially prior to the objects that it (can) contain. This is a point that we saw Kant making in the *Inquiry*.

Unfortunately, matters are far less clear in the first argument of MECS. The argument is compressed and cryptically worded. I think there is a good explanation for its brevity and obscurity: it was written against the backdrop of a debate about the proper explication of the concept of space that would have been familiar to Kant’s philosophically-informed readers but which is no longer familiar to us. In the next section, I explain what was at issue in this debate and why it matters for the MECS. In subsequent sections, I draw on this historical context in order to answer the question of what claims about space serve as premises in these arguments. Consideration of the historical context of Kant’s arguments provides further evidence, I think, for my general interpretation of the methodology of the MECS and of the epistemic and ontological status of its key premises.

3 The Wolffians vs. Crusius on the Distinct Concept of Space

The protagonists in the debate I am referring to were Christian Wolff and his follower Alexander Baumgarten, on the one side, and Christian Crusius on the other. The specific point at issue was the question of how the concept of space is to be explicated. But the debate also involved more general questions about the nature of analysis and its role in metaphysics.

3.1 The Wolffian Explication of Space

One of Wolff's goals in *Rational Thoughts on God, the World and the Soul of Man, and on All Things Whatsoever* (the so-called *German Metaphysics*) [1720] is to provide his readers with "distinct concepts" of all the things that are traditionally treated under the heading of 'metaphysics.'²⁹ According to Wolff, we render a concept distinct by analyzing it – that is, by finding the marks that belong to it and that distinguish it from other concepts. In the *German Metaphysics*, Wolff presents the results of his analysis of the concept of space after laying out some very general metaphysical principles (such as the principle of sufficient reason) and explicating some very general metaphysical concepts (such as possibility, identity, similarity, ground, essence, and necessity):

What space is. Now when many things that exist at the same time and are not identical are represented as outside one another (§ 45), a certain order among them thereby arises [*entsteht*] 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. For this reason, if we do not want to consider the object differently from how we cognize it, we must take *space* to be the order of those things that co-exist. And thus no *space* can exist if things are not present to fill it, although it is still distinct from these things (§ 17).³⁰

According to Wolff, space is "the order of those things that co-exist."³¹ Since Wolff takes himself to be providing us with a distinct concept of space in this

²⁹ *German Metaphysics* Preface. See also *Rational Thoughts on the Powers of the Human Understanding and their Correct Use in the Cognition of Truth* (the so-called *German Logic*) § 13 and § 21.

³⁰ *German Metaphysics* § 46, 15. Wolff's emphasis.

³¹ *German Metaphysics* § 46, 15.

passage,³² he must regard this as a statement of one of the marks that distinguishes space from other things.³³ Wolff's strategy for finding this mark is to consider the circumstances in which we first form the concept of space, or as he puts it, in which we first *cognize* space.³⁴ According to Wolff, we form the concept of space when we observe many co-existing bodies and notice a "certain order" among them. This order of co-existence, then, is one of the marks of the concept of space. But it is not merely a mark of the *concept* of space. For Wolff, the marks of the concept of space are features of space itself; to deny this would be "to consider the object differently from how we cognize it."³⁵ In other words, conceptual analysis has ontological import. As Wolff sees it, he is giving us, in addition to a partial analysis of the concept of space, a partial explanation of space itself. This explanation is far from trivial; it implies that, *pace* the Newtonian view, space does not exist unless there are bodies present to fill it.

The above passage does not represent Wolff's full account of space. In the next section, he defines 'place' as the unique mode of co-existence that each thing has with the others.³⁶ All existing bodies belong to an order of co-existence by virtue of the fact that each has a *place* vis-à-vis the others. Later in the *German Metaphysics*, Wolff argues that bodies are constituted by co-existing simple substances.³⁷ Though they have no extension,³⁸ these simple substances "co-exist next to one another," and thus each has its own place. For Wolff, the place of each body – its way of co-existing with the others – is determined by the places of the simple substances that constitute it. The place of each simple substance, in turn, is grounded in its internal states.³⁹ Since space is the set of all places (the set of ways in which things co-exist with one another), it follows that it, too,

³² That Wolff takes himself to be providing us with a distinct concept of space in this passage is clear from what he says in *Remarks on Rational Thoughts on God, the World and the Soul of Human Beings, Also All Things in General* §§ 20 f.

³³ For Wolff's account of analysis and its role in acquiring distinct concepts of things, see the *German Logic* (esp. §§ 13–20).

³⁴ In the *German Logic*, Wolff describes the process of arriving at the distinct concept of time in similar terms: "It is also possible that one could get a distinct concept of time. For one can indeed cognize that which allows it to be distinguished from other things; however, most people only have an indistinct concept of it because they do not pay attention to what they actually find in their thoughts and in the visible world [*sichtbaren Welt*] that enables them to arrive at the cognition of time [*dadurch sie zur Erkenntniß der Zeit gelangen*]" (§ 21).

³⁵ *German Metaphysics* § 46, 15.

³⁶ *German Metaphysics* § 47, 15.

³⁷ *German Metaphysics* §§ 75 f., 17.

³⁸ *German Metaphysics* § 81, 17.

³⁹ *German Metaphysics* §§ 593 f., 40.

is grounded in the states of simple substances. Thus, space for Wolff can only be fully explained in terms of the states of simple substances. Nevertheless, the complete explanation of space has as its starting point the partial explanation of space as “the order of those things [i.e. bodies] that co-exist.”⁴⁰ For Wolff, to grasp this explanation is to have a distinct concept of space. Subsequent analysis only serves to make this concept exhaustive and complete.

At this point, it is important to note three important features of the analysis that Wolff employs in order to arrive at the distinct concept of space. First, it is compatible with a certain degree of empiricism. Wolff uncovers marks of the concept of space by considering the experiences that first give rise to the concept. Second, the analysis employs concepts that are (i) more abstract (that is, less contentful) than the analysandum, and (ii) supposed to be contained inside of the analysandum. Third, the analysis doubles as a partial metaphysical explanation of space.

Baumgarten, one of Wolff’s followers, shares his understanding of analysis, and largely takes over his account of space. In his *Metaphysics* [1739], Baumgarten defines space as “the order of co-existent things mutually posited outside of one another.”⁴¹ Both Wolff and Baumgarten rely on the highly abstract concept of an “order of co-existence” in their expositions of the concept. The main difference between their expositions is Baumgarten’s inclusion of the phrase “outside of one another” to qualify the sort of order that gives rise to space. Though he does not explain why he introduces this qualification, it is plausible to assume that Baumgarten is trying to correct an oversight on Wolff’s part. While Wolff uses the phrase “outside of one another” in his account of how we acquire the concept of space, he does not include it in his exposition. But if his method for analyzing the concept of space is to consider how we first form the concept, then since we need to represent things as outside of one another in order to form the concept of space, “outside of one another” should be included in the exposition of the concept.

3.2 Crusius’s Attack

The Wolffian account of space came under heavy fire in Crusius’s *Sketch of the Necessary Truths of Reason* [1745]. This work contains Crusius’s metaphysics, which he describes as the “fundamental science” that gives “the grounds of

⁴⁰ *German Metaphysics* § 46, 15. Wolff’s emphasis.

⁴¹ *Metaphysics* § 239, 102.

the possibility or necessity *a priori*” for the objects treated by other sciences.⁴² For Crusius, metaphysics must begin with ontology, whose aim it is “partly to analyze [*zergliedern*] the general concept of a complete thing into the concepts that arise through analysis, partly to find [*erfinden*] from the general concepts that occur therein the determinations [*Determinationen*] that can be cognized from them *a priori*.”⁴³ In ontology, we begin with the concept of a complete actual thing – which we can attain through the sensory experience of any arbitrary existing thing⁴⁴ – and analyze it into the complex concepts of which it is composed until we ultimately arrive at the simplest concepts. In decomposing the concept of a complete actual thing in this way, we attain distinct concepts of the various features of complete actual things.⁴⁵ The ontologist is particularly interested in attaining distinct concepts of features that necessarily belong to all complete actual things and that are fundamental, in the sense that they make possible other features of complete actual things.

Crusius and the Wolffians agree that analysis plays a crucial role in metaphysics. They also agree that conceptual analysis does not tell us merely about our concepts of things but also about the things themselves. But they otherwise have very different views about the nature of analysis and its proper role in metaphysics. Whereas the Wolffians begin their metaphysics with an analysis of some very abstract concepts, Crusius begins with a concept that is extremely contentful, the concept of a complete actual thing. Whereas the Wolffians think that an analysis should employ concepts that are more abstract than the analysandum and contained within it, Crusius does not think this is always the case. We can also use analysis to render concepts distinct that are too simple to contain any marks within them (and thus cannot themselves be analyzed). We do this by analyzing the complex concepts of which this simple concept is a part.⁴⁶ In such a case, the analysis employs concepts that are more contentful than the analysandum and which are not contained within it. Crusius calls the sort of distinctness that arises in this way “logical distinctness.”⁴⁷ The candidates for logical distinctness are the simplest ones; we render them logically distinct not by analyzing them but by analyzing more complex concepts, starting with the concept of a complete actual thing. By Crusius’s lights, the Wolffians’ failure to see that the simplest

⁴² *Sketch* Preface, 137, and *Sketch* § 6.

⁴³ *Sketch* § 7.

⁴⁴ *Sketch* § 9, 139: “Thus, whoever is attentive and acute enough can abstract the entirety of ontology from any actually present object that comes before our senses.”

⁴⁵ *Sketch* § 7, 138.

⁴⁶ *Sketch* § 7, 138.

⁴⁷ *Sketch* § 8, 139.

concepts – such as the concept of space – cannot be analyzed has led them to give some extremely muddled expositions of concepts. As he writes, they “weave and tangle [*sie flechten und wirren*] one [concept] in the other, and define first this through that, and then that through this.”⁴⁸

Towards the end of the ontology section of the *Sketch*, Crusius explains exactly what is wrong with the Wolffian explication of the concept of space:

If one says space is the order or manner in which several things co-exist next to one another, then one indeed defines a possible thing, but not that which we call space or *ubi*, according to the nature of the thing itself [*nach Veranlassung der Natur der Sache selbst*]. This is not in the least explained. And if one did not have a different concept of space due to nature, nothing could be thought along with these words. For the true concept of space already lies in the words ‘next to one another’; similarly, it also already lies in the fact that among the things whose order or whose mode of co-existence is supposed to constitute space one can have in mind nothing other than substances if one does not want to be ridiculous. For music or meditation or a definition would otherwise be a space, because many things are next to one another in them. Pre-established harmony would likewise be a space, because it is the mode of co-existence between the body and soul. By contrast, if one also wanted to seek space only in the order of the co-existence of substances, that one is not defining space in its typical meaning is already clear from the fact that according to its usual concept one can also still attribute an *ubi* or a space to a simple substance, even if one represents it all by itself and cannot represent it in any other way.⁴⁹

The Wolffians have explicated a concept, but it is a concept that they themselves have invented. They have not explicated the true concept of space, or as Crusius sometimes calls it, the “given concept of space,”⁵⁰ that is, the concept that reflects the nature of the thing itself. For Crusius, this is evident from the fact that the Wolffian concept applies alike to musical pieces, meditations, and definitions – in each of which many things co-exist next to one another in some sense. In place of the concept of space given to us by nature, the Wolffians have substituted a less contentful (and thus, more general) one. For Crusius, this mistake reflects a general defect in the Wolffian approach to analysis.

The Wolffians might try to fix the problem of the over-generality of their exposition by specifying that space is an order of co-existing *substances*, each of which is outside of the others. However, this also fails to do justice to the true concept of space, since it has the counterintuitive consequence that, in a world containing

48 *Sketch* § 8.

49 *Sketch* § 49, 147. I first came across this passage in Desmond Hogan’s (unpublished) dissertation. However, as far as I can tell, Hogan does not link this argument up with Kant’s position in the MECS. Crusius’s argument is also discussed by Hatfield (2006, 67) and Koriako (1999, 59 f.).

50 See, for instance, *Sketch* § 50, 147.

a single such substance, there would be no space.⁵¹ Another possibility would be for the Wolffians to try to specify a sense of “next to one another” (or “outside of one another”) according to which the members of a piece of music are not next to one another, but the members of the order of co-existence constitutive of space are next to one another. The problem is that it is not at all clear how the Wolffians could do this; they cannot, for instance, say that the relevant sense of “next to one another” is spatial, since this is the concept that they are trying to explain. If they were to include this qualification in their exposition (if they were to say, for example, “space is the order of co-existent things mutually posited spatially outside of one another”) the result would be patently circular.

For Crusius, we rely on our given concept of space when we grasp the spatial sense of the phrases “next to one another” and “outside of one another.” (This is what Crusius means when he says that “the true concept of space already lies in the words ‘next to one another.’”)⁵² It is this concept that we need to render distinct in order to understand what space is. Since the concept of space is simple, and thus only admits of logical distinctness, the way to render it distinct is to analyze the complex concepts of which it is a part. Crusius focuses in particular on the concept of existence, since he thinks that the concepts of space and time are part of this concept.

Based on his analysis of the concept of existence, Crusius offers two complementary explications of the concept of space. According to the first, space is “nothing other than that within which we think that substances exist and which remains in thought when we have abstracted from them that which relates uniformly to all substances that are in it.”⁵³ According to the second, “space is the possibility of the co-existence of substances next to one another that is distinct from the power of their efficacious causes.”⁵⁴ Crusius thus regards space as a framework that (i) contains all finite substances; (ii) is ontologically prior to finite substances; and (iii) grounds the possibility of the co-existence of substances next to one another.⁵⁵ As he writes, “even if before the world nothing other than God had

51 Sketch § 49, 147.

52 Sketch § 49, 147.

53 Sketch § 48, 146.

54 Sketch § 59, 152. In saying that “space is the possibility [...] that is distinct from the power of their efficacious causes” (my emphasis), Crusius seems to mean that space is an inefficacious ground of possibility, rather than an efficacious one. An inefficacious ground is one that brings about a given effect (or the possibility of the effect) in accordance with its existence alone; for that reason, it is also called an existential ground. See Sketch § 36, 144.

55 Here one might wonder why Crusius is not himself guilty of offering a circular definition of space, just as the Wolffians did. In effect, what Crusius is saying is that space makes possible the co-existence of the things that are in space (it is precisely those things that are *next to one*

existed, the possibility had still been there that finite things could exist next to one another.”⁵⁶ Crusius uses the term “possible space” to denote the object of our given concept of space, which is characterized by (i)–(iii).⁵⁷ He relies on further conceptual analysis to show that possible space is (iv) infinite in scope and (v) made up of absolute places.⁵⁸ He contrasts possible space with “actual space” – space insofar as it is occupied by actual finite things. Actual space is finite in scope and made up of relative places. Crusius takes his conceptual analysis to imply that possible space is neither a substance, a relation, nor an accident, the traditional three alternatives. Rather, space is “an abstraction of existence.”⁵⁹ Because Crusius holds that the concept of (possible) space is part of the concept of existence, he takes the following to be a necessary truth: “everything that exists must be somewhere”.⁶⁰

3.3 The connection with the MECS

Kant was undoubtedly familiar with this debate, and with the positions of its protagonists. He relies on Baumgarten’s *Metaphysics* as a textbook for his lectures on metaphysics; he grapples with various doctrines from Crusius’s *Sketch* and Wolff’s *German Metaphysics* in a number of pre-Critical texts. Moreover, there is good reason to think that Crusius’ and the Wolffians’ views about the distinct concept of space were at the forefront of Kant’s mind when he wrote the MECS. As we have seen, the arguments of the MECS rest on the results of conceptual analysis; Kant purports to be providing us with a *distinct concept* of space. It would have been extremely irresponsible if Kant had failed to take into account what the major philosophers of his time had said about this topic. Kant would have had especially good reason to consider the views of Crusius since, like Crusius, Kant considers and rejects the traditional three answers to the ques-

another). Though the definiendum appears in the definiens, the circularity does not seem to be vicious, in part because, unlike the Wolffians, Crusius’s definiens is not supposed to double as an explanans; he does not purport to be explicating the possibility of space through more ontologically basic entities. Instead, he is defining space by pointing out a particular role that it plays with respect to the entities that occupy it. Despite the awkwardness of having the same term figure in both the definiendum and the definens, the latter is still quite informative about the nature of the underlying thing (even if it doesn’t explain its possibility).

⁵⁶ *Sketch* § 59.

⁵⁷ *Sketch* § 51 and § 356, 170 f.

⁵⁸ *Sketch* § 51, 148 and *Sketch* § 52, 148 f.

⁵⁹ *Sketch* § 51, 148.

⁶⁰ *Sketch* § 48, 146.

tion “what is space?”⁶¹ In addition, Kant’s understanding of the positive role of conceptual analysis in metaphysics and its impotence in the field of mathematics was greatly shaped by Crusius’s views on this score.⁶² Indeed, Kant explicitly acknowledges his debt to Crusius in the *Inquiry*,⁶³ in which, as we have seen, he anticipates the account of philosophical method that he later puts to work in the MECS.

As soon as we start considering the MECS with this debate in mind, it is not difficult to find echoes of it; it is also not difficult to tell which position Kant is more sympathetic to. Like Crusius, Kant’s starting point is the “given concept” of space. Like Crusius, Kant thinks that conceptual analysis reveals space to be infinite and ontologically prior to the things in it. With regard to the latter point, consider the similarity between the following two statements: “Space, according to its primary concept, is nothing other than that within which we think that substances exist and which remains in thought when we have abstracted from them” (Crusius, § 48). “One can never represent that there is no space, though one can very well think that there are no objects to be encountered in it” (A24/B38). As I argued earlier, Kant is here invoking modal intuitions about space in support of the conceptual and ontological point that it is not essential to space to have objects in it.

In the next two sections, I determine the points of agreement and disagreement between Crusius and Kant with regard to the question of how the concept of space is to be explicated. Subsequently, I draw on these sections to answer the question of what knowledge of space is at issue in the MECS and to reconstruct the first argument.

4 Kant’s Agreement With Crusius

There can be little doubt that Kant agreed with Crusius’s main objection to the Wolffian view of space. Kant presents much the same objection in the *Metaphysik Mrongovius* (transcripts from the lectures on metaphysics that Kant gave during the Critical period):

⁶¹ Sketch § 51, 148.

⁶² See Heimsoeth 1956, 136 f., for a discussion of the ways in which Crusius’s claims about philosophical method anticipate Kant’s own. See also Tonelli 1969 and Cassirer 1907, 532 f., for a general discussion of the similarities between Kant and Crusius.

⁶³ AA 2:294.

The author [i.e., Baumgarten] explains space through the order of things posited outside of one another. Things in different places are posited outside of one another. The concept of place presupposes the concept of space, and the concept is accepted as already familiar: the order of many things, insofar as they exist after each other, is time; to be successive is to be at different times, thus the same is explained through the same. (AA 29:831)

Kant is here assuming that Baumgarten is using the phrase “outside of one another” in a specifically spatial sense – the sense of the term which licenses the inference from “these things are outside of one another” to “these things are in different places.” This is a reasonable enough assumption since, as Crusius pointed out, if phrases like this are not being used in the Wolffian exposition in a specifically spatial sense, the result is too general, applying alike to spaces, pieces of music, meditations, and definitions. The problem is that, when it is made clear that “outside of one another” is being used in a specifically spatial sense, the exposition is patently circular. The result would look like this: “space is the order of things mutually posited spatially outside of one another.” The term ‘space’ occurs on both sides of the exposition. “[T]hus the same is explained through the same,” as Kant says (AA 29:831). Crusius had made exactly the same point.

Kant also agrees with much of Crusius’s positive account of space. Like Crusius, Kant thinks that space is a framework that (i) consists of many places⁶⁴ and (ii) is ontologically prior to the things in it. Indeed, Kant takes (i) and (ii) to follow immediately from an analysis of the given concept of space, as we saw above in our discussion of the *Inquiry*. He reiterates (i) and (ii) in the *Metaphysik Mrongovius*: “Our understanding supposes: [Space] precedes all things, it is viewed as an all-encompassing receptacle, containing nothing except places of things” (AA 29:830). Though Kant does not say here explicitly that we arrive at this understanding of space through an analysis of the given concept of space, there is no reason to think that he abandons the view of the *Inquiry* on this score (especially since Kant does not offer any other support for what he says here).

In addition, Kant comes very close to endorsing Crusius’s claim that space is “the possibility of the co-existence of substances next to one another.”⁶⁵ In two pre-Critical reflections, Kant distinguishes between two ways of conceiving the relationship between space and relations among things:

⁶⁴ In saying that space, for Kant, consists of places (that is, the parts of space are places), I do not mean to deny that it is also Kant’s view that the whole of space is in some sense prior to its parts (see, e.g., A438/B466).

⁶⁵ *Sketch* § 59, 152.

Either space contains the ground of the possibility of the compresence [*compraesentz*] of many substances and their relations, or these contain the ground of the possibility of space. (AA 17:293)

The order of things which are next to one another is not space, but space is that which makes possible, according to determinate conditions, such an order, or better, coordination. (AA 17:639)

Kant obviously has the Wolffians in mind when he discusses the claim that space is made possible by “the compresence of many substances and their relations,” or put slightly differently, “the order of things which are next to one another.” The alternative position that Kant presents in the first passage – “space is the ground of the possibility of the compresence of many substances and their relations” – sounds strikingly similar to Crusius’s claim. So, too, does the view that he endorses in the second passage.⁶⁶

We find Kant making very similar claims in the *Critique*. In the Paralogisms chapter, for instance, Kant characterizes the representation of space as “a representation of a mere possibility of being together [*Beisammenseins*]” (A374). As I interpret this remark, Kant is saying that our given concept of space is of a framework that makes it possible for the things in it to co-exist with one another.⁶⁷ There are other formulations in a Crusian vein, though they employ the term ‘community’ (that is, mutual interaction) rather than ‘co-existence.’ In the next section, I will explain why Kant favors the former term.

66 This view of space represents a marked deviation from Kant’s earlier career. In Kant’s earliest texts – *True Estimation* [1747], *Universal Nature History* [1755], and *Physical Monadology* [1756] – he claims that there is no space without actual mutual interaction among actually existing substances. In these texts, Kant goes so far as to claim that actual mutual interaction is included in the concept of space. In the *New Elucidation* [1755], for instance, he writes: “[T]he concept of space is constituted by the interconnected actions of substances” (AA 1:415). As we will see, mutual interaction continues to play an important role in Kant’s mature account of the concept of space, even though Kant abandons his early view that space depends for its existence on *actual* mutual interaction.

67 Another remark in this vein: “Space, prior to all things determining (filling or bounding) it, or which, rather, give an empirical intuition as to its form, is, under the name of absolute space, nothing other than the mere possibility of external appearances” (A429/B457).

5 Kant's Departure from Crusius: Existence, Community, and Place

As one would expect, Kant does not uncritically accept Crusius's exposition of space. He departs from Crusius's view in three key respects. First, unlike Crusius, Kant does not think we can make any justified claims about the domain of the concept of space, the range of objects that it can be correctly applied to, based solely on conceptual analysis. Indeed, we cannot do this with any concept for Kant. Consider, for example, the concept 'cause.' By analyzing it, we see that "the concept of a cause obviously contains the concept of a necessity of connection with an effect and a strict universality of a rule" (B5). Anything that falls under the concept of a cause will have these marks. But this analysis does not tell us what things in the world are causes; indeed, it does not guarantee that there are any causes among the objects that we intuit. (If Kant thought that mere conceptual analysis could help us on these points, he would not have needed to go through the trouble of providing a Transcendental Deduction.) The same holds for the concept «space». Though analysis teaches us about the content of the concept of space – it teaches us, for example, that space is a framework that consists of places and that is ontologically prior to the objects in it – it does not tell us what objects are in space. By contrast, Crusius thinks it is possible to infer from analysis that "everything is somewhere" (that is, everything that exists is in space).⁶⁸ This view makes sense when we keep in mind that the concept Crusius is analyzing to explicate the concept of space is the concept «existence». From Kant's standpoint, however, the assumption that the concept of space is contained in the concept of existence is a symptom of Crusius's dogmatism. Kant explicitly attacks the view that "everything is somewhere" in the *Inaugural Dissertation* and the *Critique*.⁶⁹

Second, in contrast to Crusius, Kant thinks that space grounds the possibility of the co-existence of the things in it (where a 'thing,' for Kant, is either a substance or a state of a substance) *because* space grounds the possibility of the mutual interaction (or community) of all the substances in it. In Crusius's view, to say that two substances co-exist is just to say that each exists. It is impossible for substances to *co-exist* without being in space because it is impossible for them to *exist* without being in space. Just as Crusius takes the spatial relatedness of two substances (the fact that they belong to the same space) to follow from the mere fact that each exists (and is thus, somewhere), he also takes their causal

⁶⁸ *Sketch* § 48, 146.

⁶⁹ AA 2:413 f. and A27/B43.

interaction with one another to follow from the fact that they both exist. Thus, for Crusius, it is logically impossible for substances to exist without also co-existing, being part of the same space, and acting causally on one another.

But Kant maintains the opposite.⁷⁰ For Kant, the co-existence of two substances, along with the co-existence of their respective states, requires more than that the substances and their states all exist. It also requires that the substances have something to do with one another; they must be members of the same world.⁷¹ This, in turn, requires that the substances *interact* with one another.⁷² The question for Kant is, how is this possible? Whereas in Kant's earlier works, he tries to explain space in terms of mutual interaction, he comes to see that it is space that makes possible the mutual interaction (or community) of whatever substances exist within it. In the *Inaugural Dissertation*, for instance, he writes, "space contains the conditions of possible reciprocal actions only in respect of matter" (AA 2:414). A similar remark occurs in the mid-1770s: "space is possibility of community" (AA 28:325). Yet another formulation of the view occurs in a note that Kant inserted into his copy of the first edition of the *Critique* in the Third Analogy chapter: "Space makes community possible" (AA 23:31 f.).⁷³ It is because Kant thinks that the co-existence of substances that are in space, along with the co-existence of their respective states, requires the mutual interaction of those substances, *and* he thinks that space grounds the possibility of the mutual

70 See, e.g., the *New Elucidation* (AA 1:414). For an argument to the effect that Crusius (rather than Leibniz or Wolff) is Kant's target in his discussion of the "principle of co-existence" in the *New Elucidation*, see Watkins 2005, 141–149.

71 As the term is used by Kant in these contexts, the term 'co-existence' (along with its synonym "compresence") does not have a specifically spatial or temporal connotation; it is perhaps best understood as meaning "being together". It may be sufficient for the being together of two things that they exist in different places at the same time, but it is not necessary. In this sense of the term, concepts and things-in-themselves (which are non-spatio-temporal) can be together – that is, co-exist.

72 One might wonder why, if Kant thinks that mutual interaction is analytically entailed by co-existence, the Third Analogy is not a much shorter and more straightforward argument than it in fact is. Two points help to explain this. First, the notion of co-existence at issue in the Third Analogy is not the generic and not specifically temporal notion of being together (see the above note for more on this); instead, it is the temporal notion of co-existence, a notion that applies first and foremost to the states of substances (rather than substances themselves). Second, the Analogies seem to be arguing *towards* the claim that the objects of our cognition (substances and their states) actually belong to a single world (or nature), and so co-exist in the sense of being together (see A214–216/B261–263). What this means is that Kant is not at liberty to assume that we have knowledge of co-existence in the sense of being together in the same world.

73 See also B293 (quoted below), AA 20:284, and AA 11:246.

interaction of whatever substances are in space, that Kant can agree with Crusius that space is a framework that makes possible the co-existence of the things in it (which, to repeat, are either substances or states of substances). Note, however, that this does not commit Kant to the view that all co-existing substances and co-existing states of substances are in space. As we saw above, Kant does not think that conceptual analysis alone can tell us anything about just what things (that is, what substances and states of substances) are in space. For all conceptual analysis reveals, it could well be the case that the class of things that co-exist in space is a small subset of the class of all existing things.⁷⁴

Third, Kant disagrees with Crusius about the nature of the places that space consists of. For Crusius, “possible space” consists of *absolute* places. (In this respect, Crusius’s view has much in common with Newton’s.) Absolute places have the following features: (i) an object can occupy an absolute place even if it is not spatially and causally related to any other (this happens when there is only one object in space); (ii) absolute places have determinate spatial relations to one another (e.g., between any two absolute places, there is some fixed quantum of *distance*, even if we cannot determine what it is), and these relations do not depend on relations among the things in space; and (iii) when a thing moves from one absolute place to another, its motion is absolute.

In contrast to Crusius, Kant does not think that space contains absolute places. In addition to the epistemological problem that we have no direct experience of such places, Kant also seems to think that the very notion of an absolute place is absurd.⁷⁵ On Kant’s view, all place is relative. He defines place “as determinate position, i.e., relation to other things in space” (AA 29:839 f.).⁷⁶ This means that (i) no object can occupy a specific place without being spatially and causally related to another object or other objects; (ii) places themselves have no specific positions with respect to each other independent of the positions of the objects

⁷⁴ On a two-worlds reading of transcendental idealism, this is in fact Kant’s view: things-in-themselves are co-existing substances, though they do not co-exist with any of the things in space.

⁷⁵ See AA 2:403 f., AA 17:453 and AA 17:578. There seem to be at least two things that Kant finds absurd about absolute places: first, these are supposed to have an infinite number of true relations (e.g., distances) to one another, even when there are no things in space (see, e.g., AA 2:404); second, an object’s being at an absolute place is not supposed to require that it relate to any other actually existing thing (this is part of what it means to call it an *absolute* place), though it is also supposed to be the case that objects existing at different absolute places are necessarily spatially and causally related in virtue of the relations that exist among their respective absolute places (see, e.g., AA 2:406).

⁷⁶ Cf. AA 28:758. See also A274/B330.

that occupy those places;⁷⁷ and (iii) all motion is relative (movement from one relative place to another). Because Kant thinks that space is a framework that consists entirely of relative places (in the above sense), he holds that space is entirely relational.⁷⁸ A clear expression of Kant's relationism occurs in the Amphiboly Chapter: "[S]pace [...] along with everything that it contains, consists of purely formal or also real relations" (A284/B340).⁷⁹ At the same time, Kant allows that space, understood as a set of infinite places (that is, extended regions), does not depend for its existence on the objects in it. However, (ii) entails that, in a completely unoccupied space, there would be no fact of the matter about the position of each place relative to the others (similarly, there would be no fact of the matter about the magnitude or shape of any such place). Nevertheless, there would still be modal facts regarding the manner in which possible objects could and could not be reciprocally spatially and causally related. This latter feature of space is entailed by Kant's claim that space makes possible the community and thus the co-existence of the objects in it. Further evidence for Kant's commitment to this claim occurs in the General Note on the System of Principles, where Kant says that space "already contains in itself a priori formal outer relations as conditions of the possibility of the real (in effect and countereffect, thus in community)" (B293).

6 The Metaphysical Exposition revisited

In Section 2, I argued that the arguments of the MECS rely on warranted claims about the essence of space; these claims are the result of an analysis of the "given concept" of space. I examined the historical context of the MECS in the hope of gaining insight into the specific claims at issue in the MECS. As I showed, Kant agrees with Crusius that we can learn on the basis of conceptual analysis that space is a framework that (i) consists of many places and (ii) grounds the possibility of the co-existence of the things in it. In this section, I will show how Kant

⁷⁷ A fairly clear statement of this occurs in the Antinomy chapter of the *Critique*: "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).

⁷⁸ Rae Langton calls attention to this aspect of Kant's account of space (1998, 166–168), though she does not explain what it means or how Kant justifies it.

⁷⁹ Other statements about the relationality of space occur at A23/B37 and B67.

is relying on this knowledge in the first argument of the MECS. At the same time, I will provide a completely new reading of this argument.

6.1 The First Argument of the MECS

The argument is contained in three notoriously dense and obscure sentences:

Space is not an empirical concept that has been drawn from outer experiences. For in order for certain sensations to be related to something outside me (i.e., to something in another place in space from that in which I find myself), thus in order for me to represent them as outside and next to one another, thus not merely as different but as in different places, the representation of space must already be their ground. Thus the representation of space cannot be obtained from the relations of outer appearance through experience, but this outer experience is itself first possible only through this representation. (B38)

While some Kant commentators take the main premise of this argument to be the tautology that “the representation of space is necessary for the representation of space,”⁸⁰ others have attempted to find a respectable argument in these sentences. The challenge for commentators who take the latter path is to identify a set of premises that is at once strong enough to entail the intended conclusion (but not too strong), and compatible with Kant’s other views. The argument’s schema is generally assumed to be the following:⁸¹

- (1) The representation of space is presupposed by ____
Therefore,
- (2) The representation of space is not empirical

Commentators differ about what goes in the blank in (1) and about Kant’s justification for this claim. In the first edition of *Kant’s Transcendental Idealism*, Henry Allison fills in the blank with “outer experience,” and argues that the now completed (1) rests on the following two premises:⁸²

- 1a): The representation of space is presupposed by the representation of objects as distinct from me or from one another
- 1b): The representation of objects as distinct from me or from one another is presupposed by outer experience

⁸⁰ See, for instance, Strawson 1966, 58.

⁸¹ For this schema, see Warren 1998, 182.

⁸² For this reconstruction, see Warren 1998, 184.

Allison's reconstruction has gone out of favor of late, and Allison himself has repudiated key elements of it.⁸³ Daniel Warren and several other commentators have recently defended a new sort of reading, one which I call the spatial relations reading. There are many variations of this reading, but they all share the idea that Kant's argument rests on a claim about how we represent spatial relations. On Warren's version of the spatial relations reading, the argument is as follows:⁸⁴

(1') The representation of space is presupposed by the representation of objects as spatially related (namely, as spatially outside of me or outside of one another)

Therefore,

(2) The representation of space is not empirical

(1') in turn rests on the following:

(1a'): When we represent objects as spatially related (namely, as outside me or outside one another), we must represent them as occupying places or regions in space

(1b'): The representation of space is presupposed by the representation of objects as occupying places or regions in space

Significantly, conceptual analysis plays no role in Allison and Warren's reconstructions. They are not unusual in this respect; to my knowledge, almost no commentators accord any significant role to conceptual analysis in their reconstructions. In addition, both Allison and Warren offer purely epistemological readings of the argument, by which I mean that no claims about space figure in the premises as they construe them. Instead, the main premises are claims about the *representation* of space. They are not unusual in this respect either;⁸⁵ many assume that Kant is not in any position to make any claims about the nature of space until after the MECS, if at all. However, if my account of the argumentative strategy of the MECS is correct, then these arguments rest on knowledge of the nature of space attained through conceptual analysis. It is a general flaw in reconstructions of the sort advocated by Allison and Warren that they assign no role to claims about space arrived at through conceptual analysis.

Allison and Warren's reconstructions also have some more specific defects. Since the defects in Allison's argument have already been meticulously doc-

⁸³ Allison 2004, 100–104.

⁸⁴ For the following, see Warren 1998, 197 and 202.

⁸⁵ Lorne Falkenstein is particularly explicit about this: "In short, the Expositions are not about what space and time are at all. They are about what sorts of representations we have of space and time and how these representations arise in us" (1995, 147).

umented,⁸⁶ I will focus on Warren's reconstruction instead. On Warren's view, Kant's argument is first and foremost a response to Leibniz.⁸⁷ He takes (1a') in particular to express a position directly contrary to the one that Leibniz advocates in the fifth letter of the *Leibniz-Clarke Correspondence*, where Leibniz seems to be saying that the representation of place is something that we abstract from (prior) empirical representations of objects as spatially related.⁸⁸ But first of all, given the historical context of the MECS as I have presented it, a more natural opponent for Kant in this passage would be figures in the Wolffian tradition, given that they are explicitly engaged in the exposition and definition of concepts and Leibniz is not. Second of all, as Warren himself admits,⁸⁹ Kant offers no explicit reason in the text for thinking that the representation of objects as occupying distinct places in space is *prior*⁹⁰ to the representation of them as standing in spatial relations with one another. Thus, if Kant is responding to Leibniz's position in the *Leibniz-Clarke Correspondence*, he seems to be merely begging the question: Leibniz thinks you can derive the concepts of space and place from a prior empirical representation of spatial relations; Kant, on Warren's reading, says instead that the representation of objects as occupying places in space is prior to representing them in spatial relations, even though Kant would presumably concede that the priority relations are reversed in the case of "brighter-than" relations and places in "brightness-space." It seems more charitable to construe Kant's argument differently so as to find him giving reasons *in the text of the MECS* for rejecting his opponent's position, rather than simply affirming the contrary of what they maintain.

Another problem with Warren's reconstruction is that he has Kant merely considering *one* rival view about the origin of our concept of space: Leibniz's.

86 See Warren 1998, 186–188; Falkenstein 1995, 163–165, and Allison 2004, 101.

87 Warren 1998, 205. See also Allison 2004, 102.

88 Leibniz 1989, 337 f.

89 See Warren 1998, 206 f. To his credit, Warren goes on to offer a brief but interesting explanation (involving "a priori modal claims about what combinations of spatial relations are or are not possible") for why Kant would regard Leibniz's account of spatial relations as false. The problem is that this line of reasoning is not at all suggested by the wording of the first apriority argument, and while it may be Kantian, it does not seem like the sort of thing that Kant could expect his readers to "fill in" themselves.

90 That Warren understands Kant to be making a claim about the priority of the representations of place and space to the representation of spatial relations is clear from 211 and 212. He considers the possible objection that the representation of objects in places might be equi-primordial with the empirical representation of spatial relations among those objects and thus itself empirical, but claims that Kant would have principled reasons for rejecting the idea of a joint derivation from experience.

But Kant's explicit conclusion is completely general: "Space is not an empirical concept that has been drawn from outer experiences" (B38). In other words, there is *no way* to get the concept of space from experience. How could Kant conclude from the falsity of Leibniz's specific account of the origin of our representation of place that there is no rival account that works? Given the strength of Kant's conclusion, one expects some principled argument against any empiricist account of the origin of the concept of space.

A further shortcoming of Warren's reconstruction is that it is in tension with Kant's relationist construal of place. As I have argued, for an object to occupy a place for Kant is for it to stand in actual or possible spatial and dynamical relations with other objects. In other words, Kant's view is actually closer to Leibniz's than it might initially appear. Given his relationist view, it would be awkward for Kant to maintain that one's representation of the place of an object is somehow prior to the representation of its actual or possible spatial and dynamical relations. It would fit better with his relationism, and with his views (elaborated in the next paragraph) on the relationship between the concepts <being in distinct places> and <being spatially outside of>, to maintain that the representations of these things mutually condition each other.

On the most natural reading of the argument's second sentence, Kant is not saying that the representation of objects as occupying distinct places is *prior* to the representation of objects as in spatial relations. Instead, as Warren himself says, Kant mentions different places in order to disambiguate the phrases "outside of" and "next to one another" – to make clear that they are to be understood in a spatial (as opposed to an ontological sense). This is what Kant is doing in a parallel discussion in the *Metaphysik Mrongovius*, where he says: "Things in different places [*Orten*] are posited outside one another" (AA 29:831). Just as it would be a mistake to take Kant to be saying in this passage from the *Metaphysik Mrongovius* that the representation of the relation of outsideness is prior to the representation of distinct places, so it would be a mistake to read the second sentence of the first argument of the MECS as affirming the converse. *Pace* Warren, in bringing up different places in the second sentence, Kant does not intend to be making a controversial point about the relative priority of representing places and representing spatial relations; instead, he is drawing on (what he takes to be) a *trivial* point about the relation between two concepts: namely, the concepts of spatial outsideness and being in distinct places are reciprocally entailing.

One can understand why Kant would do this when one considers the Wolfian background: in offering their expositions of the concept of space, which they drew on in order to demonstrate the empirical nature of the concept of space, the Wolffians were not careful to disambiguate the phrase "outside of." As Crusius had shown, once the phrase is understood in its spatial sense (which Kant, sensi-

bly enough, takes to entail being in distinct places), the Wolffian exposition will not work. Instead, a different exposition is called for.

6.2 A New Reconstruction of the Argument

Another reconstruction of the argument emerges once we consider that Kant is relying on knowledge about the *essence of space* obtained from an exposition of the concept of space, and once we take into account what the major philosophers of his day had to say on this score. As we have seen, Wolff's strategy for finding the marks of the concept of space is to consider the manner in which we form the concept of space. According to Wolff, this concept arises when we represent many co-existing bodies outside of one another and notice a "certain order" among them. Because Wolff thinks we arrive at the concept of space in this way, he takes the following to be a partial exposition of the concept of space: space is "the order of those things that co-exist."⁹¹ Baumgarten then tweaks this exposition, such that space is "the order of co-existent things mutually posited outside of one another."⁹² If I am right that Kant is relying on the results of an exposition of space in the first argument of the MECS, then it would be natural for him to have in mind specifically the Wolffian exposition in his argument.⁹³ Such a reading of the argument is supported by the fact that Kant is clearly attacking the Wolffian exposition of time⁹⁴ in the *Inaugural Dissertation* (at AA 2:399), where he gives arguments for the apriority of the concepts of time and space that are analogous to those that he gives in the *Transcendental Aesthetic*. It is also supported by the fact that Kant explicitly alludes to the Wolffian exposition in the *Metaphysics of Morals*: "space is an a priori intuition and not (as Wolff explains it) a juxtaposition [*Nebeneinandersein*] of a variety of items outside one another given merely to empirical intuition" (AA 6:208).

As I read the crucial second sentence of the first argument in the MECS, Kant is thinking of the Wolffian (specifically, the Baumgartenian) exposition of space

⁹¹ *German Metaphysics* § 46, 15.

⁹² *Metaphysics* § 239, 102.

⁹³ It is true that Kant did not always clearly distinguish between the Leibnizian and the Wolffian positions. I am merely claiming that the Wolffian position is the main target of the first argument of the MECS; whether or not Kant might have also thought that Leibniz held this view is another question. (Note, though, that Kant draws a sharp distinction between the Wolffian account of space and the Leibnizian account of space in the *Metaphysical Foundations of Natural Science* [1786], AA 4:508.)

⁹⁴ See *German Metaphysics* § 94 and Baumgarten's *Metaphysics* § 239, 102.

(“space is the order of things mutually posited outside of one another”) when he disambiguates the phrase “outside of”. Though Kant does not explain why in an exposition of the concept <space> this phrase must be understood in a spatial sense, he probably thought that he did not need to since he assumed his philosophically informed readers would have seen in the discussion of “outside of” an allusion to Crusius’s objection to the Wolffian view: if phrases like these are being used in a non-spatial sense, then the Wolffian exposition fails to distinguish spaces from definitions, pieces of music, etc. In the parenthetical remark, Kant is using the fact that the concepts of being in different places and being outside of one another are mutually entailing to make clear the specific spatial sense of outsideness at issue.

Kant’s positive proposal about how to explicate the concept of space is contained in the last clause of the second sentence, in Kant’s claim that the “representation of space is their ground.” Though Kant speaks of the “representation of space” as being a ground, I think what he really means is the object of this representation: namely, space. This is not such an interpretive stretch as it might initially appear. Kant is not always careful to distinguish between given concepts and their objects. We need look no further than the first sentence of the argument to find evidence of this: “Space is not an empirical concept that has been drawn from outer experiences” (B38). There is a reason for such sloppiness. As I explained in Section 2, Kant thinks that at least some of the marks of a given concept are also marks of the object of this concept. This is why the analysis of a given concept gives us knowledge about the nature of the corresponding object. Given this model of conceptual analysis, it is not surprising that Kant sometimes slides back and forth between talking about the representation of space (that is, the given concept of space) and talking about the object of this representation.

Assuming this is correct, of what is Kant saying that space is the ground? Space is a ground of there being things (namely, the objects of our sensations)⁹⁵ that are spatially outside of each other and us. Initially, that can sound vacuous, as if the claim were that space is the ground of space. But the vacuity disappears when we consider the fact that things that exist outside of one another *co-exist* with one another in the way that members of the same world do. It is this co-existence that Kant thinks is in need of a ground, where ground here is shorthand for “ground of possibility”: a ground of X makes possible X. What Kant is claiming in

⁹⁵ Like Allison, Warren, and many other commentators, I am here assuming that the referents of “them” in Kant’s second sentence are, in the first instance, the objects of our sensations rather than the sensations themselves. However, unlike them, I also allow for, and can make sense of, the applicability of Kant’s general claim to the sensations themselves since these too can be viewed as states of a substance that co-exists with objects – namely, the objects that I am sensing.

this remark is that space makes possible the co-existence of things that exist in space (that is, that exist spatially outside of one another). We have already seen Kant making precisely this sort of claim in a number of other texts, so there can be no question of his being philosophically committed to it. Consider the two reflections quoted above: “Either space contains the ground of the possibility of the compresence [compraesentz] of many substances and their relations, or these contain the ground of the possibility of space” (AA 17:293). “The order of things which are next to one another is not space, but space is that which makes possible, according to determinate conditions, such an order, or better, coordination” (AA 17:639). Though Kant does not use the words “co-existence” or “compresence” or “coordination” or “community” in the first argument of the MECS, he does speak of “relations of outer appearance”. Warren takes Kant to simply mean spatial relations here, but given Kant’s intended targets in the argument, the Crusian background, and Kant’s philosophical commitments, it is plausible to take the relations in question to be both relations of space (namely, the relations “outside of” and “next to”) *and* relations of co-existence (existing together with).

This doctrine is a natural one to bring into an exposition of the concept of space, particularly after Kant, in disambiguating “outside of”, has just made an allusion to Crusius’ objection to the Wolffian exposition of space. Kant’s view that space is the ground of the possibility of the co-existence of the things in it is much like Crusius’s claim that space is the possibility of the co-existence of things next to one another. In fact, the main difference is that, whereas Crusius is making the assumption that all co-existing things exist in space – that is, they are all spatially next to one another – Kant is not making this assumption. (And he explicitly articulates his disagreement with Crusius on this score later in the Aesthetic, at A27/B43.) His claim is that, of the things that co-exist in space (which is not necessarily all co-existing things), space is the thing that makes it possible for them to co-exist. On my view, Kant’s positive exposition of space is, like Crusius’s, a claim about the nature of space itself (not, as many commentators say, a claim solely about the representation of space), and this claim is the result of conceptual analysis.

There remains a question, however, about how Kant is able to attain the very strong conclusion of the argument: the concept of space is not drawn from experience. Here is my reconstruction of the argument:

- (1) Space grounds (that is, makes possible) the co-existence of whatever things are in space (From Conceptual Analysis)
- (2) Space grounds (that is, makes possible) the co-existence of the things in space that we experience (From 1)

- (3) That which makes possible the co-existence of the things that are in space and that we experience is not itself something we experience (Assumption)
- (4) If our concept of a thing is drawn from experience, it must be drawn from our experience of the thing (Assumption)

Therefore,

(Conc) Our concept of space is not drawn from experience (From 2, 3 and 4)

As I suggested above, I find premise 1 in the last clause of the second sentence of the passage. A formulation of premise 2, a logical consequence of 1, occurs in the last clause of the third sentence: “but this outer experience is itself first possible only through this representation”. Here again, by “representation” Kant is actually talking about the object of the representation of space (so, the object of the given concept of space): namely, space. The outer experience at issue is experience of a co-existence of things in space. This is a legitimate formulation of premise 2, which says that space makes possible the co-existence of the things in space that I experience, as long as it assumed that conditions of the possibility of the object of experience are conditions of the possibility of experience. (This is the converse of the idealist principle Kant famously offers latter in the *Critique*: conditions of the possibility of experience are conditions of the possibility of the objects of experience [A158/B197].) Given this assumption, if space makes possible the co-existence of the things that are in space and experienced by us, then space makes possible our experience of the co-existence of the things in space.

I take premise 4 to be something so uncontroversial (in Kant’s eyes) that it did not deserve explicit mention: if we have no experience of a thing, then we can’t attain a concept of that thing from experience; we couldn’t, as it were, derive our concept of it from experience of something else. Premise 3 is likewise not explicitly mentioned, but some such premise must be implicit, given that it is otherwise mysterious how Kant moves from the claim that space is a ground of something (on my reading, namely, the ground of the possibility of the co-existence of the spatial things that we experience, and thus the experience of a co-existence of spatial things) to the claim that the concept of space is not derived from experience. What is Kant’s basis for accepting premise 3? One possible justification would be his view that experience only shows us what is actually the case (see, e.g., B3), whereas a ground, which is here shorthand for a ground of possibility, is something that necessarily accompanies the state of affairs that it makes possible: in this case, the co-existence of things that I experience. Another possible justification is that space as a ground of possibility plays a role similar to

Newton's absolute space; it serves as a framework or container within which the items that we experience all co-exist. Given that Newton's absolute space was widely assumed to not be directly experientiable (only some of its effects or consequences could be – in particular, inertial effects, like the water curling up the sides of Newton's rotating bucket) Kant could plausibly assume that a framework that plays the same role is itself not experientiable. Thus, our concept of space could not be derived from experience.

I take the following to be advantages that my reconstruction has over Warren's: it is consistent with Kant's other commitments (including his relationism) and relies on claims that he clearly articulates in other texts; it draws explicitly on conceptual analysis; it fits better with the historical context; and it can account for the generality of Kant's conclusion, which excludes any empirical account of the origin of our concept of space. A general worry that one might have with my reconstruction of the argument is that I attribute two premises to Kant that are not explicitly formulated in the text of the MECS (namely, premises 3 and 4). Moreover, while I think there are textual grounds for premises 1 and 2, Kant's wording is not identical to my wording. I am thus "filling in". But I think any reconstruction will have to do a certain amount of filling in given that the argument as stated is extremely compressed, ambiguously worded, and enthymatic. As I have suggested, the compression of the argument strongly suggests that Kant is assuming his reader's familiarity with the state of the debate regarding the exposition of the concept of space: particularly, Crusius's objection to the Wolffian view and Crusius's own positive proposal. I think that the "filling in" that I am doing is of the sort that Kant expected his readers to do based on his allusions to this debate.

A specific worry that one might have with the above reconstruction is that, in affirming premise 1, which is the crucial premise of the argument, Kant is simply begging the question against the Wolffian definition of space. However, as we have seen, the Wolffian definition of space is inadequate for internal reasons: it is circular. Nevertheless, one might still worry that Kant's own argument is weakened by his reliance on an assumption resting solely on conceptual analysis – an analysis that the Wolffians would contest since they think that space does not exist without there being things in it. Here it is important to see that Kant is not relying on an "ambiguous consciousness of the concept, which is thought in an entirely abstract fashion," to use the phrase from the *Negative Magnitudes* essay (AA 2:168). Instead, Kant's conceptual analysis relies on modal intuitions about the referent of the given concept of space. (In particular, he is relying on the intuition that space can exist without objects in it, and the intuition that, whenever objects are in space, it is necessarily possible for these objects to co-exist.) These modal intuitions are defeasible – particularly, as we have seen, if they conflict with the specific results or method of geometry. Given though that, as Kant shows

in the TECS, the immediate claims supported by these modal intuitions (for example, space is infinitude and unitary) as well as the mediate claims demonstrated from them (namely, that our representation of space is a pure intuition) are consistent with the method and nature of geometric knowledge while the contrasting Wolffian view is not, this provides good reason for taking the intuitions at face value.⁹⁶ Though Kant's argument as I have reconstructed it relies on conceptual analysis, it is not a naïve form of conceptual analysis.

7 Conclusion: From Conceptual Analysis to the Form Thesis

By explicating Kant's notion of a metaphysical exposition, and by considering the historical background of the MECS, I have tried to show that these arguments rely on claims about the essence of space that are obtained from an analysis of the given concept of space. Assuming these claims are consistent with the results and method of geometry, Kant thinks our beliefs in them can be regarded as knowledge. I have also tried to give a sense of the specific sorts of things that Kant thinks we can know about the essence of space by analyzing the given concept of space. As I argued, Kant thinks that knowledge of the following can be obtained from conceptual analysis: space is a framework that (i) consists of many distinct places (these are the *parts* of space); (ii) is the ground of the possibility of the co-existence of whatever things are in it; (iii) is the ground of the possibility of the mutual interaction (or community) of the things in it; (iv) is ontologically prior to the things in it; (v) is unitary; and (vi) is infinite (i.e. consists of an infinite number of places).

⁹⁶ For a fuller explanation of what I see the TECS as doing, see note 19. I should emphasize that I do not think that Kant, in viewing modal intuitions as subject to a 'check' in the form of geometry, must also regard the immediate claims supported by modal intuitions (including the claims that space is infinite and a unity) as themselves cases of synthetic *a priori* geometric knowledge. Such knowledge requires the construction of concepts in a pure intuition of space (a space characterized in part as infinite and unitary). As I say in note 19, Kant seems to have principled reasons for denying that we could construct in pure intuition global properties of space like infinitude and unity. Thus, such propositions about space are not candidates for being synthetic *a priori* geometric knowledge; instead, these propositions must be analytic. The fact that the modal intuitions upon which such propositions rest are subject to a check from geometry no more makes these propositions synthetic *a priori* than does the fact that Kant's explanation of geometry in the TECS relies on these propositions make geometry analytic *a priori*. I am thankful to an anonymous referee for suggesting this objection.

A significant payoff of my account (and piece of evidence in its favor) is that it provides the materials for a plausible reading of the first argument of the MECS. On the reading I have provided, Kant is relying specifically on (i) and (ii). My account also sheds light on the meaning and basis of a number of (otherwise mysterious) claims that Kant makes about space in other parts of the *Critique* – for example, Kant’s claim in the Amphiboly Chapter that space and everything in it consists of relations (see, e.g., A284/B340), and his claim in the General Note on the System of Principles that space “already contains in itself a priori formal outer relations as conditions of the possibility of the real (in effect and counter-effect, thus in community)” (B293). Kant does not provide any explicit argument for, or explanation of, these claims in the text, nor do they follow in any obvious way from what he has said before. So where do they come from and what do they mean? If I am right, they rest on conceptual analysis. As I argued in Section 5, Kant’s claim that space is completely relational follows from (i) and the further assumption that all places are relative (in the sense specified above). Kant’s claim at B293, in turn, is just the conjunction of the claim that space is relational and (iii).

I will conclude with some brief remarks about the relationship between (i)–(vi) and the Form Thesis. As I understand the Form Thesis, it is both a thesis about the domain of objects within space and a mind-dependency thesis all rolled into one. It says that space is a framework that contains *all and only* things that we could possibly have “outer intuitions” of, and it says that this framework does not exist independent of the pure intuition, whose object it is. So understood, the Form Thesis is fully compatible with (i)–(vi), though it does not entail them. It is also not the case that (i)–(vi) immediately entail the Form Thesis, though they do figure into Kant’s main argument for it. Kant relies on (i), (ii), (iv), (v), and (vi) in the MECS in order to show that our given concept of space originates in a pure intuition (this is the overall conclusion of the MECS). This conclusion, in turn, serves as a premise in Kant’s argument for the Form Thesis in the section of the Aesthetic entitled “Conclusions from the Above Concepts.” If I am right, then this crucial argument depends in part on knowledge of space attained from an analysis of the given concept of it. The larger upshot of my reading is that a specific kind of conceptual analysis figures centrally in the justification of at least one claim in transcendental philosophy (here, the Form Thesis). It would not be unreasonable to expect it to show up in other parts of transcendental philosophy, though showing how it does would exceed the scope of this paper.⁹⁷

⁹⁷ I am indebted to several anonymous referees whose comments have helped substantially in improving this paper. I would also like to thank Eric Watkins, Clinton Tolley, Sam Rickless, and Don Rutherford for comments on earlier drafts of this paper.

AA Kant, I. 1900 –. *Kants gesammelte Schriften*. Eds. Preussische Akademie der Wissenschaften (vol. 1–23), Deutsche Akademie der Wissenschaften zu Berlin (vol. 23), Akademie der Wissenschaften zu Göttingen (vol. 24 f.). Berlin.

Allison, H. 2004. *Kant's Transcendental Idealism*. New Haven.

Baumgarten, A. 1739. *Metaphysics*. In Watkins 2009, 89–131.

Bealer, G. 1996. "A Priori Knowledge' and the Scope of Philosophy". *Philosophical Studies* 81, 121–142.

Brandt, R. 1998. "Kants Transzendente Aesthetik, §§ 1–3". In *Immanuel Kant: Kritik der reinen Vernunft*. Eds. G. Mohr/M. Willaschek. Berlin, 81–106.

Cassam, Q. 2005. "Space and Objective Experience". In *Thought, Reference, and Experience: Themes from the Philosophy of Gareth Evans*. Ed. J. Bermúdez. Oxford, 258–289.

Cassirer, E. 1907. *Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit*. Berlin.

Crusius, C. A. 1745. *Entwurf der nothwendigen Vernunft-Wahrheiten*. Leipzig. Partial translation in Watkins 2009, 137–179. [Sketch]

Evans, G. 1980. "Things Without the Mind". In *Philosophical Subjects: Essays Presented to P. F. Strawson*. Ed. Z. Van Straaten. Oxford, 76–116.

Falkenstein, L. 1995. *Kant's Intuitionism*. Toronto.

Guyer, P. 1987. *Kant and the Claims of Knowledge*. Cambridge.

Hatfield, G. 2006. "Kant On the Perception of Space [and Time]". In *The Cambridge Companion to Kant and Modern Philosophy*. Ed. P. Guyer. Cambridge, 61–93.

Heimsoeth, H. 1956. *Studien zur Philosophie Immanuel Kants*. Köln.

Henrich, D. 1967. "Kants Denken 1762/3". In *Studien zu Kants philosophischer Entwicklung*. Ed. M. Gueroult. Hildesheim, 9–38.

Hogan, D. 2005. *Rationalism and Causal Realism in Kant's Metaphysics*. (Doctoral dissertation).

Kant, I. 1755. *Principorum primorum cognitionis metaphysicae nova dilucidatio*. New ed. in AA 1. Eng. trans. in Kant 1992b, 9–38. [New Elucidation]

–. 1763a. *Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes*. New ed. in AA 2. Eng. trans. in Kant 1992b, 107–201. [The Only Possible Argument]

–. 1763b. *Versuch den Begriff der negative Größen in die Weltweisheit einzuführen*. New ed. in AA 2. Eng. trans. in Kant 1992b, 207–241. [Negative Magnitudes]

–. 1764. *Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral*. New ed. in AA 2. Eng. trans. in Kant 1992b, 247–286. [Inquiry]

–. 1770. *De mundi sensibilis atque intelligibilis forma et principiis*. New ed. in AA 2. Eng. trans. in Kant 1992b, 377–416. [Inaugural Dissertation]

–. *Metaphysik Mrongovius*. New ed. in AA 29. Eng. trans. in Kant 1997, 109–286.

–. 1783. *Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können*. Riga. New ed. in AA 4. Eng. trans. in Kant 1977, 1–116.

–. 1797. *Die Metaphysik der Sitten*. New ed. in AA 6. Eng. trans. in Kant 1990, 365–603.

–. 1800. *Logik*. Ed. G. B. Jäsche. Königsberg. New edition in AA 9. Eng. trans. in Kant 1992a, 517–642.

- . 1977. *Prolegomena to Any Future Metaphysics that Will be Able to Come Forward as Science*. Trans. P. Carus. Ed./rev. trans. J. W. Ellington. Indianapolis.
- . 1992a. *Lectures on Logic*. Ed./trans. J. M. Young. Cambridge.
- . 1992b. *Theoretical Philosophy: 1755–1770*. Eds./trans. D. Walford/ R. Meerbote. Cambridge.
- . 1997. *Lectures on Metaphysics*. Eds./trans. K. Ameriks/S. Naragon. Cambridge.
- . 1998. *Critique of Pure Reason*. Trans. P. Guyer/A. Wood. Cambridge.
- . 1999. *Practical Philosophy*. Eds./trans. M. J. Gregor/A. Wood. Cambridge.
- . 2004. *Metaphysical Foundations of Natural Science*. Trans. M. Friedman. Cambridge.
- Koriako, D. 1999. *Kants Philosophie der Mathematik*. Hamburg.
- Langton, R. 1998. *Kantian Humility: Our Ignorance of Things in Themselves*. Oxford.
- Leibniz, G. W. 1989. *Philosophical Essays*. Eds./trans. R. Ariew/D. Garber. Indianapolis.
- Parsons, C. 1992. “The Transcendental Aesthetic”. In *The Cambridge Companion to Kant*. Ed. P. Guyer. Cambridge, 62–100.
- Pereboom, D. 1990. “Kant on Justification in Transcendental Philosophy”. *Synthese* 85, 25–45.
- Shabel, L. 2004. “Kant’s ‘Argument from Geometry’”. *Journal of the History of Philosophy* 42, 195–215.
- Strawson, P. F. 1959. *Individuals: An Essay in Descriptive Metaphysics*. London.
- . 1966. *The Bounds of Sense*. London.
- Smit, H. 2000. “Kant on Marks and the Immediacy of Intuition”. *Philosophical Review* 109, 235–266.
- Tonelli, G. (ed.) 1969. Einleitung zu: Christian August Crusius, *Anweisung vernünftig zu leben*. Hildesheim [Nachdruck der Ausgabe von 1744], VII–LXV.
- Warren, D. 1998. “Kant and the Apriority of Space”. *Philosophical Review* 107, 179–224.
- Watkins, E. 2005. *Kant and the Metaphysics of Causality*. Cambridge.
- . 2009. *Kant’s Critique of Pure Reason: Background Source Materials*. Cambridge.
- Wolff, C. 1720. *Vernünfftige Gedanken von Gott, der Welt und der Seele des Menschen, auch allen Dingen überhaupt*. Halle. Partial translation in Watkins 2009, 7–53. [German Metaphysics]
- . 1712. *Vernünfftige Gedanken von den Kräften des menschlichen Verstandes und ihrem richtigen Gebrauch in der Erkenntnis der Wahrheit*. Halle. [German Logic]