

# 4

## Sensible Synthesis and the Intuition of Space

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### 4.1 Introduction

According to Kant, human beings have two different cognitive capacities, namely sensibility and understanding. At first glance, he seems to claim that these two capacities furnish the mind with two different kinds of representation. Whereas sensibility delivers intuitions, understanding delivers concepts. Still, there are many passages in the *Critique of Pure Reason* which suggest that the relation between sensibility and understanding is more complicated than this and that Kant rejects such a straightforward division of cognitive labour. He seems to think that in order for intuitions to arise, sensibility and understanding must cooperate. When acted upon by objects, sensibility delivers sensations, but not intuitions. In order for intuitions to be produced, these sensations

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have to be processed or, as Kant says, “synthesised” by the understanding through the use of concepts. This, at least, is the standard interpretation of Kant’s conception of the relation between sensibility and understanding. In recent years, however, the standard interpretation has been challenged. Lucy Allais (2009), Robert Hanna (2001, 2005) and Colin McLear (2015), for example, all claim that sensibility, independently of any assistance by the understanding, and therefore independently of any use of concepts, delivers intuitions. In a recent article, McLear argues that it follows from the third and fourth argument in the *Metaphysical Exposition of the Transcendental Aesthetic* (TAe) that intuitions have a kind of unity that cannot be the product of a synthesis of the understanding. He calls the position he argues against “Intellectualism” and the position he argues for “Sensibilism” and characterises the two positions in the following way:

According to Intellectualism, all objective representation depends, at least in part, on the unifying synthetic activity of the mind. In contrast, Sensibilism argues that at least some forms of objective representation, specifically intuitions, do not require synthesis. (McLear 2015:79)

In this chapter, I shall argue for the claim, contrary to McLear, that the *Metaphysical Exposition of TAc*

(1) does not imply Sensibilism

and

(2) is not incompatible with a slightly modified version of Intellectualism.

In order to distinguish synthesis of concepts from synthesis of sensible representations, I shall call the second “sensible synthesis”. The reason why McLear believes that the unity of intuitions cannot be the product of sensible synthesis is that according to him intuitions exhibit a part-to-whole structure that cannot be brought about by synthesis. Obviously, every representation that is produced by synthesising or combining several representations is a representation whose parts are prior to the whole

representation. Yet, according to McLear, it follows from the third and fourth space (and time)<sup>1</sup> arguments that “the unity of aesthetic representation—characterized by the forms of space and time—has a structure in which the representational parts depend on the whole” (2015:91).

As I see it, one might reconstruct McLear’s argument for the claim that the unity of intuition is not brought about by sensible synthesis or intellectual activity in the following way:

**P1:** “If a representation has a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts, that representation cannot be a product of intellectual activity, but must rather be given in sensibility independently of such activity” (McLear 2015:90).

**P2:** Pure intuitions of space and time have a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts.

**C:** Pure intuitions of space and time cannot be a product of intellectual activity, but must rather be given in sensibility independently of such activity.

In order to evaluate this argument, it is important to note that Kant distinguishes between two different kinds of pure intuition, namely, between the intuition of a single infinitely large space (or time) and intuitions of finite spatial regions (or temporal intervals) (as for example the pure intuition of a line or a triangle). Accordingly, one should also distinguish between two versions of the argument I have just reconstructed, since its second premise and its conclusion can be understood in two different ways, depending on how one interprets the term “pure intuition of space and time”.

*First version of the second premise and the conclusion:*

**P2\*:** The pure intuition of a single and infinite spatial (or temporal) whole has a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts.

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<sup>1</sup> Like McLear himself, I concentrate on the pure intuition of space. Parallel considerations apply to the pure intuition of time.

**C\***: The pure intuition of a single and infinite spatial (or temporal) whole cannot be a product of intellectual activity, but must rather be given in sensibility independently of such activity.

*Second version of the second premise and the conclusion:*

**P2\*\***: Pure intuitions of finite spatial regions (or temporal intervals) have a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts.

**C\*\***: Pure intuitions of finite spatial regions (or temporal intervals) cannot be a product of intellectual activity, but must rather be given in sensibility independently of such activity.

McLear himself does not distinguish between these two versions of the argument. However, I think that in order to evaluate the argument it is essential to make this distinction. In Sect. 4.2, I examine the two versions of the argument and discuss how they relate to the truth or falsity of Sensibilism and Intellectualism. In Sect. 4.3, I shall make a proposal for how best to modify Intellectualism in such a way that it is compatible with the Metaphysical Exposition. In Sect. 4.4, I briefly discuss a second feature of pure intuitions concerning which one might think that intuitions that have it cannot be the product of sensible synthesis.

## 4.2 Two Versions of McLear's Argument

In the third argument from the Metaphysical Exposition Kant writes:

Space is not a discursive or, as is said, general concept of relations of things in general, but a pure intuition. For, first, one can only represent a single space, and if one speaks of many spaces, one understands by that only parts of one and the same unique space. And these parts cannot as it were precede the single all-encompassing space as its components (from which its composition would be possible), but rather are only thought *in it*. It is essentially single; the manifold in it, thus also the general concept of spaces in general, rests merely on limitations. (A24–5/B39)

McLear is certainly right to claim that according to the Metaphysical Exposition the representation of a single and infinite spatial whole is prior

to the representation of its parts.<sup>2</sup> In the third argument Kant points out that our representation of space is the representation of a single entity and that the representations of many spaces are representations of parts of this single space, where these parts “cannot as it were precede the single all-encompassing space as its components (from which its composition would be possible), but rather are only thought *in it*” (A25/B39). Thus, the pure intuition of a single and all-encompassing space has a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts. Furthermore, at the beginning of the fourth argument of the Metaphysical Exposition Kant characterises space not only as all-encompassing (which is compatible with the assumption that the single space is finite), but as infinite. He writes:

Space is represented as an infinite *given* magnitude. (A25/B39)

Thus, McLear is justified in holding **P2\***. Since, as I see it, the first premise is uncontroversial as well, the first version of McLear’s argument goes through and the intuition of a single and infinite spatial whole is shown not to be a product of intellectual activity, but to be given in sensibility independently of such activity. If one accepts—as McLear and I both do—that a necessary condition for having an intuition is that the representations that are contained in the intuition form a unity, one furthermore gets the result that the unity of the intuition of the single and infinite space is not the product of an intellectual activity. Thus, I completely agree with McLear that there are pure intuitions which are not the product of sensible synthesis and which have a unity that is not the product of sensible synthesis. Yet I disagree with him concerning the implications of this claim. As I see it, the first version of McLear’s argument does not prove the truth of Sensibilism. Furthermore, even though it does prove that Intellectualism, as McLear characterises it, is indeed wrong, it does not prove the falsity of a slightly modified version of Intellectualism. As I have already said, McLear characterises Sensibilism as the claim that “at least some forms of objective representation, specifically intuitions, do not require synthesis” (McLear 2015:79). Even though, according to this characterisation, Sensibilism is compatible with the assumption that there are *objective representations* that

<sup>2</sup> See McLear (2015:89–90).

require synthesis (say, judgements), Sensibilism is not compatible with the assumption that there are *intuitions* that require synthesis. Yet the first version of McLear's argument only shows that there are two intuitions that are not the product of sensible synthesis, namely the intuition of infinite space and the intuition of infinite time. It does not show that pure intuitions of finite spatial regions or temporal intervals and empirical intuitions do not require sensible synthesis. Likewise, the argument only shows that the unity of the intuition of infinite space and time is not the product of sensible synthesis. It does not show that the unity of pure intuitions of finite spatial regions or temporal intervals and the unity of empirical intuitions is independent of intellectual activity. Thus, the first version of McLear's argument does not prove Sensibilism.

What about Intellectualism? Since McLear characterises Intellectualism as claiming that *all* objective representations depend on synthesis, the first version of his argument shows that Intellectualism, formulated in this way, is wrong. Yet it is possible to defend a modified version of Intellectualism, according to which all objective representations with the exception of the intuition of infinite space and time are the product of synthesis. Such a modified version of Intellectualism is not ruled out by the first version of McLear's argument. In Sect. 4.3, I shall argue that this way of modifying Intellectualism does not amount to a weak ad hoc solution, but is due to the fact that for Kant there is an important difference between, on the one hand, the pure intuition of infinite space and infinite time, and, on the other hand, all other intuitions. However, before I do that, I shall examine whether the second version of McLear's argument leads to a stronger conclusion than the first one. The second version of McLear's argument runs as follows:

**P1:** "If a representation has a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts, that representation cannot be a product of intellectual activity, but must rather be given in sensibility independently of such activity" (McLear 2015:90).

**P2\*\*:** Pure intuitions of finite spatial regions (or temporal intervals) have a structure in which the parts depend on the whole rather than a structure in which the whole is dependent on its parts.

**C\*\*:** Pure intuitions of finite spatial regions (or temporal intervals) cannot be a product of intellectual activity, but must rather be given in sensibility independently of such activity.

It is important to note that, in contrast to the first version of McLear's argument, it does not follow from what Kant says in the third and fourth arguments of the Metaphysical Exposition that the second premise is true. In the third argument, where the whole–part relation is treated, Kant only writes about the relation between the infinite spatial whole and its finite parts. He does not say anything concerning the relation between *finite* spaces and their parts. From the third argument we only learn that every finite space has to be represented as a limitation of infinite space, but we do not learn that the spatial parts of a finite space have to be represented as parts of this space. Thus, it does not follow from the third argument of the Metaphysical Exposition that pure intuitions of finite spaces have a structure in which the parts depend on the whole. Since the second premise is not supported by the Metaphysical Exposition, the argument as it is stated is not sound.<sup>3</sup>

To sum up. Since the first version of McLear's argument only shows that the pure intuition of infinite space and time cannot be the product of sensible synthesis and the second version is not sound, he does not manage to prove that the Metaphysical Exposition is incompatible with the assumption that there are intuitions the formation of which requires sensible synthesis. Quite the contrary, the third and fourth arguments of the Metaphysical Exposition are compatible with assuming that the formation of pure intuitions of finite spatial regions and temporal intervals as well as the formation of empirical intuitions require sensible synthesis. Thus, the Metaphysical Exposition does not imply the truth of Sensibilism.

### 4.3 A Modified Version of Intellectualism

I now turn to the question of whether the claim that for Kant the intuitions of infinite space and of infinite time are the only ones that do not presuppose sensible synthesis is an ad hoc reaction to the observation that the Metaphysical Exposition is not compatible with the assumption that these intuitions are the product of sensible synthesis or whether

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<sup>3</sup> Of course, since the spatial parts  $p_1$ – $p_n$  of a finite space  $s$  are finite spaces as well, they too have to be represented as limitations of an infinite space. But this does not imply that they have to be represented as limitations of  $s$ . Thus, even though  $p_1$ – $p_n$  have to be represented as limitations of an infinite space, this does not imply that the intuitions of  $p_1$ – $p_n$  are dependent on the intuition of  $s$ .

there might be an explanation for why Kant treats empirical intuitions and intuitions of finite spaces and times differently from the intuitions of infinite space and of infinite time. I shall argue that there is a crucial difference between, on the one hand, the intuition of infinite space and time, and, on the other hand, all other intuitions, and that it is because of this difference that for Kant the claim that the formation of an intuition presupposes sensible synthesis is not valid for the intuition of infinite space and time. More precisely I argue for the following claim:

- (i) The intuitions of infinite space and of infinite time are the only ones for which it is true that the object of the intuition is not phenomenally present to the subject of the intuition.

If one accepts this claim and furthermore believes—as I do—that

- (ii) the function of sensible synthesis is to make the object of a complex sensible representation phenomenally present to the subject and thereby to generate an intuition,<sup>4</sup>

then it is easy to understand why the intuitions of infinite space and of infinite time are the only ones that do not require sensible synthesis. If sensible synthesis is required for making the object of a complex sensible representation phenomenally present, but the objects of the intuition of infinite space and of infinite time are not phenomenally present, then the coming into being of these intuitions does not require sensible synthesis. I therefore suggest that Intellectualism be modified in the following way:

Intellectualism\*: All representations of objects that are phenomenally present to the subject depend on sensible synthesis.

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<sup>4</sup>I have chosen this way of formulating the function of sensible synthesis for reasons of simplicity. According to my interpretation of the function of sensible synthesis, a more accurate characterisation of this function would be the following. Sensible synthesis is required for relating the qualitative and the spatiotemporal content of complex sensible representations to an object and making it phenomenally present to the subject. In other words, sensible synthesis is required for transforming the qualitative and the spatiotemporal content of complex sensible representations into intentional content and making this content phenomenally present to the subject.



In this part of my essay I only argue for claim (i). I do not argue for claim (ii) because the question concerning the function of sensible synthesis is a very complicated matter and McLear's argument is supposed to show that, regardless of how exactly one characterises the function of sensible synthesis, any characterisation according to which the function of sensible synthesis is to *generate* intuitions has to be wrong, because it is inconsistent with Kant's claims in the Metaphysical Exposition of the Concept of Space. Since the goal of this chapter is not the positive goal of proving that the function of sensible synthesis *indeed is* to produce intuitions, but only the more modest negative goal of showing that Kant's arguments in the Metaphysical Exposition do not imply that the function of sensible synthesis cannot be characterised in this way, I shall only argue for claim (i). Should I be successful in persuading the reader of the truth of (i), the way is then open to accept the modified version of Intellectualism (Intellectualism\*) I have proposed above. This is because, given the truth of (i), that is, the truth of the claim that the intuitions of infinite space and time differ from all other intuitions in that for the former it is not true that the object of the intuition is phenomenally present to the subject, and given the assumption that the function of sensible synthesis is to make the objects of intuitions phenomenally present, one can explain why Kant believed that all intuitions except for the intuitions of infinite space and of infinite time are produced by sensible synthesis.

Before I start arguing for (i) let me make a short remark about how I understand the term "phenomenally present". As I use the term, an object is phenomenally present to a subject if and only if there is something it is like for the subject to have a representation of the object. In other words, to say that an object is phenomenally present is to say that the representation of the object has a distinctive subjective or phenomenal character. It is not to say that the object seems to be really there or seems to exist. I take it that it is uncontroversial that the objects of empirical intuitions and the objects of intuitions of finite spatial regions and temporal intervals *are* phenomenally present in this sense. So in arguing for (i) I only argue for the claim that the objects of the intuitions of infinite space and of infinite time are *not* phenomenally present, whilst I do not argue for the claim that these are the *only* objects of intuition that are not phenomenally present.

Let me first note that, phenomenologically, the claim that the objects of the intuitions of infinite space and of infinite time are phenomenally present is extremely implausible. To me at least, it is utterly unclear how an object that is unbounded in extent could be phenomenally present to a human being. It does not help to point out that to have an a priori intuition of space does not consist in having a *perception* of space. I completely agree that an a priori intuition of infinite space is not a perception. I take it that to have an a priori intuition of space, instead, is to have an imagination. Yet, in my view, the assumption that the object of an *imagination* of infinitely large space is phenomenally present to the subject of the imagination does not fare any better than the assumption that the object of a perception of infinite space is phenomenally present. Since it makes sense to speak of a visual field not only in the case of perception, but also in the case of imagination, and since the visual field in both cases is finite, the claim that an infinitely large object can be phenomenally present seems equally wrong in the case of the perception of an infinitely large object and in the case of the imagination of an infinitely large object.<sup>5</sup> Thus, the first reason not to ascribe the claim to Kant that the objects of the intuition of infinite space and of infinite time are phenomenally present is that one should not ascribe a very implausible claim to Kant, if one is not forced to do so. I shall now discuss several passages which speak in favour of assuming that Kant indeed did not believe that the objects of the intuitions of infinite space and of infinite time are phenomenally present. The first is a passage from *On Kästner's Treatises*, where Kant writes:

That a line can be extended to infinity means so much as: the space in which I describe the line, is greater than every one line which I may describe in it; and thus the geometer grounds the possibility of his task of increasing a space (of which there are many) to infinity on the original representation of a unitary, infinite, *subjectively given* space. Now that the geometrically and objectively given space is always *finite* agrees completely with this; for it is only given through its being *constructed* [*gemacht*]. ... With this also agrees entirely what Raphson, according to Councillor Kästner's quotation

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<sup>5</sup> McLearn seems to agree on this point. Cf. McLearn (2015:95).

on p. 418, says, [namely] that the mathematician is always only concerned with an *infinito potentiali* [a potential infinite], and [that] *actu infinitum* (the metaphysically given [infinite]) *non datur a parte rei, sed a parte cogitantis* [an infinite in actuality is not given on the side of the thing, but on the side of the thinker]. (OKT, 20:420–1)

In this passage, Kant distinguishes between geometrical space, which is finite, and metaphysical space, which is infinite, and claims that only the first is objectively given, whereas the second is subjectively given. Here, the distinction between objective and subjective givenness has to be another distinction than the distinction between objective and subjective validity or reality, since for Kant both the representation of metaphysical space and the representation of geometrical space are objectively real. As I see it, it is most plausible to interpret “objectively given” as “given as an object”. This interpretation is substantiated by the Latin quote at the end of the passage, where Kant takes himself to agree with the mathematician Joseph Raphson that the actual infinite is not given on the side of the thing or object.<sup>6</sup> That the actual infinite space is not given on the side of the thing cannot mean that space is not a thing in itself. If it meant this, then Kant would also have to deny that finite spaces are given on the side of the thing. Still, as we have seen, instead of denying this, he explicitly claims that finite spaces are given objectively or as an object. As far as I can see, the only alternative to understanding Kant’s claim that the actual infinite space is not given on the side of the thing is to understand it as meaning that the actual infinite is not an object of intuition. Of course, it is not at all clear what it might mean to say that the infinite is not given as an object or that it is not an object of intuition. This is because Kant seems to understand the terms “object” and “relation to an object” in very different ways. Since Kant defines intuitions as singular representations that have an immediate relation to an object,<sup>7</sup> in some sense it must also be true for the intuitions of infinite space and infinite time that they have an object. Thus, there is a sense in which infinite space and time are

<sup>6</sup>Kant seems to misread *actu infinitum* as meaning “actual infinity”, whereas it should be translated as “infinite in act” or “infinite in actuality”. Cf. Kant (2014:312n.16).

<sup>7</sup>Cf. A320/B376–7.

the objects of pure intuitions, and there is a sense in which they are not objects of intuition or given as an object.

In the present context, I do not want to say anything concerning the sense in which infinite space and time are objects of intuition. I only want to suggest that the sense in which they are not objects of intuition is that they are not objects that are phenomenally present to us. So far, of course, this is only a suggestion. Therefore, in the remainder of this section I shall discuss two passages which support my interpretation of the passage from *On Kästner's Treatises* as the correct one. The first is a passage from the Metaphysical Exposition of the Concept of Time where Kant writes:

The infinitude of time signifies nothing more than that every determinate magnitude of time is only possible through limitations of a single time grounding it. (A32/B47–8)

According to this passage, in characterising time as being infinite, Kant only wants to say something about a property of finite periods of time, namely the property of being possible only as a limitation of a single (unlimited) time. As I see it, for Kant to claim that finite periods of time are only possible as limitations of a single time is the same as to claim that it is possible to have an intuition of a finite period of time only if one represents or experiences this period of time as part or limitation of a single time. In other words, it is possible to have an intuition of a finite period of time only if its property of being a limitation of a single time is phenomenally present to the subject of the intuition. Thus, when Kant writes that the infinitude of time signifies nothing more than a property of finite periods of time, he denies that time as an infinitely large object is phenomenally present to us. Instead what is phenomenally present to us is a property of finite periods of time, namely the property of being a part or limitation of a single time. I take it that for the property of being a part or a limitation of a single time to be phenomenally present amounts to experiencing a finite temporal interval as being surrounded by a larger period of time, which, regardless of how large it is, is always expected to be experienced as being surrounded by an even larger temporal

period, and so on. Something like that at least is suggested by a sentence from the first-edition version of the fourth argument of the Metaphysical Exposition of the Concept of Space, in which Kant seems to equate the claim that space is represented as an infinite given magnitude with the claim that there is “boundlessness in the progress of intuition” (A25). Thus, according to my interpretation, even though for Kant we have an intuition of infinite space and time, what is phenomenally present in such an intuition is not a single infinitely large object, but a property of finite spatial regions or temporal intervals.

This interpretation is further substantiated by the way in which Kant explains how the a priori intuition of space is formed or acquired. In *On a Discovery*, Kant claims that all representations, including the pure intuitions of space and time, are acquired. Yet, when he explains how the a priori intuition of space is acquired, he only explains how such a priori intuitions are formed for which it is true that finite spaces are phenomenally present. He does not give two explanations, one for how we form a priori intuitions in which finite spaces are phenomenally present to us, and one for how we form an intuition in which infinite space is phenomenally present to us. As I see it, Kant’s explanation of how the a priori intuition of space is acquired consists of two steps. First, he describes how representations with spatial content are formed. Second, he explicates how this content is isolated from empirical content.

Let me elaborate. In *On a Discovery*, Kant points out that the reason why our intuitions have *spatial* content is that there is an *innate ground* of this content in us. That the *spatial* content of our intuitions does not depend on external things in the world, but on an innate ground in us, is the reason why he characterises the intuition of space as *originally* acquired. Still, we would not have an intuition with spatial content if objects did not affect our senses. This is why he characterises the intuition of space as *originally acquired*. In *On a Discovery*, Kant writes:

The ground of the possibility of sensory intuition is ... the mere *receptivity* peculiar to the mind, when it is affected by something (in sensation), to receive a representation in accordance with its subjective constitution. Only this first formal ground, e.g., of the possibility of an intuition of

space, is innate, not the spatial representation itself. For impressions would always be required in order to determine the cognitive faculty to the representation of an object (which is always a specific act) in the first place. Thus arises the formal *intuition* called space, as an originally acquired representation (the form of outer objects in general), the ground of which (as mere receptivity) is nevertheless innate. (ÜE, 8:222)

According to this passage, the innate ground of the content of the intuition of space is “the mere *receptivity* peculiar to the mind ... to receive a representation in accordance with its subjective constitution”. The subjective constitution of our receptivity consists in delivering representations whose content has a certain formal structure, namely a spatial structure. Thus, the innate ground of our intuition of space is the innate disposition or capacity to deliver representations whose content is spatially structured. The reason why Kant denies that the pure intuition of space is innate is that, in order for this disposition or capacity to be activated and thus for representations with spatial content to be produced, objects have to affect receptivity so that there *are* any representations (namely sensations) that can be spatially structured. Clearly, this characterisation of the original acquisition of the pure intuitions of space and time is not complete. The representations that are formed when objects affect our receptivity are not *a priori*, but empirical intuitions. They are empirical intuitions the content of which also contains an *a priori* element, namely spatial structure. Thus, in a second step Kant has to explain how an intuition is formed that contains nothing but spatial structure. We find this explanation at the beginning of TAE in the *Critique of Pure Reason*. There, Kant writes:

This pure form of sensibility is also called *pure intuition*. So if I separate from the representation of a body that which the understanding thinks about it, such as substance, force, divisibility, etc., as well as that which belongs to sensation, such as impenetrability, hardness, color, etc., something from this empirical intuition is still left for me, namely extension and form. These belong to the pure intuition, which occurs *a priori*. (A20–1/B34–5)<sup>8</sup>

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<sup>8</sup> See also A27/B43.

From this passage we learn that, in order to form an intuition that contains nothing but spatial structure, we have to abstract from all empirical aspects of the content of an empirical intuition. In this way, we arrive at a pure intuition of space. Thus, since what is phenomenally present to a subject, when she has the empirical intuition with which she starts in order to form the pure intuition of space, is a finite spatial region, what is phenomenally present to the subject, when she has abstracted from all empirical aspects of the intuition and thus has formed a pure intuition of space, is still a finite spatial region.

Interestingly, Kant nowhere gives an additional or alternative explanation of how we form the intuition of space. Thus, his account from *On a Discovery* and from TAc is supposed to explain both how we form a priori intuitions of finite spatial regions and how we form the a priori intuition of infinite space. If what I have said so far is right, it turns out that, in having an intuition in which a finite spatial region is phenomenally present, one has an intuition of such a finite spatial region as well as an intuition of infinite space. And we can explain how this can be the case, if we assume—as I have suggested—that what is phenomenally present when one has an intuition of infinite space is a property of finite spaces, namely the property of being part of the all-encompassing space. Thus, the fact that an infinitely large object that is phenomenally present to subjects does not feature in Kant's account of the original acquisition of the pure intuition of space speaks in favour of my claim that the a priori intuition of infinite space is not an intuition in which the object of the intuition, namely infinite space, is phenomenally present to us.

I take it that my interpretation of the above passage makes plausible my claim that for Kant infinite space and time are not phenomenally present to the subject of the intuition of infinite space and time. Since the objects of all other intuitions are phenomenally present to the subject of the intuition we have found a central distinction between the intuition of infinite space and time, on the one hand, and all other intuitions, on the other. If one furthermore accepts the claim that the function of sensible synthesis is to make the objects of intuitions phenomenally present, then one can see why according to Kant the formation of the intuition of infinite space and infinite time does not presuppose sensible synthesis even though the formation of all other intuitions presupposes

such a synthesis. Thus, we now have an explanation for why the fact that Intellectualism, as McLear formulates it, is false is compatible with the assumption that in the case of empirical intuitions and a priori intuitions of finite spaces and times the formation of such intuitions presupposes sensible synthesis.

## 4.4 The Argument from the Infinite Divisibility of Space

In the last part of this chapter, I briefly discuss another reason for the assumption that intuitions of finite spaces cannot be the product of sensible synthesis. In the argument I have discussed so far, the property that was supposed to make it impossible that the pure intuition of space could be the product of sensible synthesis was the property of having a structure in which the parts depend on the whole. However, there is another property of the intuition of space, the possession of which might be supposed to speak against assuming that pure intuitions of space depend on sensible synthesis. This is the property of being a continuous magnitude, that is, “the property of magnitudes on account of which no part of them is the smallest (no part is simple)” (A169/B211). Because finite spaces are continuous magnitudes, they contain infinitely many parts. Still, our understanding being a capacity of finite beings cannot synthesise infinitely many parts. Thus, we get the following argument, which is supposed to show that intuitions of finite spaces cannot be the product of sensible synthesis:

*Argument from the infinite divisibility of space:*

**P1:** Intuitions of finite spaces are intuitions of continuous magnitudes.

**P2:** If intuitions of continuous magnitudes were the product of sensible synthesis performed by the understanding, then the understanding would have to synthesise infinitely many parts.

**C1:** If intuitions of finite spaces were the product of sensible synthesis performed by the understanding, then the understanding would have to synthesise infinitely many parts.

**P3:** The understanding cannot synthesise infinitely many parts.



**C2:** Intuitions of finite spaces cannot be the product of sensible synthesis performed by the understanding.<sup>9</sup>

This argument is formally valid. Furthermore, the first premise is uncontestedly true. Thus the soundness of the argument depends on the truth of the second and third premises. Even though both premises might seem to be plausible, from what Kant says in the Axioms of Intuitions and in the Anticipations of Perceptions it follows that he could not accept both. Here are the relevant passages:

I call an extensive magnitude that in which the representation of the parts makes possible the representation of the whole (and therefore necessarily precedes the latter). (A162/B203)

Since the mere intuition in all appearances is either space or time, every appearance as intuition is an extensive magnitude, as it can only be cognized through successive synthesis (from part to part) in apprehension. All appearances are accordingly already intuited as aggregates (multitudes of antecedently given parts). (A163/B203–4)

The property of magnitudes on account of which no part of them is the smallest (no part is simple) is called their continuity. Space and time are *quanta continua* .... All appearances whatsoever are accordingly continuous magnitudes, either in their intuition, as extensive magnitudes, or in their mere perception (sensation and thus reality), as intensive ones. (A169–70/B211–12)

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<sup>9</sup>I am not sure whether McLear wants to attribute the argument from the infinite divisibility of space to Kant. On the one hand, he nowhere mentions an argument of this form and only claims that it is the property of having a structure in which the parts are dependent on the whole, which makes it impossible to assume that the pure intuition of space is the product of sensible synthesis. On the other hand, he not only discusses the third argument of the Metaphysical Exposition, in which Kant claims that the all-encompassing space is prior to its parts, but also the fourth argument, in which Kant claims that the representation of space contains infinitely many representations, and he claims that both arguments show that the pure intuition of space cannot be a product of sensible synthesis. Furthermore, there is at least one passage in which McLear seems to imply that the reason why the pure intuition of space cannot be dependent on sensible synthesis is that our understanding is finite: “Kant’s point in the third and fourth arguments of the Metaphysical Exposition is that no finite intellect could grasp the extent and nature of space and time as infinite wholes via a movement from part to whole” (McLear 2015:91).

From these passages we learn two things that are relevant for evaluating the argument from the infinite divisibility of space. The first is that Kant defines extensive magnitudes as entities for which it is true that the representation of the whole entity depends on the representation of its parts. Furthermore, it turns out that for Kant a representation which has a structure in which the whole is dependent on its parts is the result of a successive synthesis. Thus, for Kant all (intuitive) representations of extensive magnitudes are the result of sensible synthesis. The second thing to note is that for Kant being an extensive magnitude is compatible with being a continuous magnitude. This follows from the last quote where he explicitly claims that *as extensive magnitudes* appearances are continuous magnitudes. Since for Kant an appearance is the “undetermined object of an empirical intuition” (A20/B34), it turns out that having an intuition of an extensive magnitude is compatible with having an intuition of a continuous magnitude. If we take the claim that all representations of extensive magnitudes are the result of synthesis together with the claim that being a representation of an extensive magnitude is compatible with being a representation of a continuous magnitude, we get the result that being a representation that is generated by sensible synthesis is compatible with being a representation of a continuous magnitude. Thus, by pointing out that intuitions are representations of continuous magnitudes one cannot show that they cannot be the result of sensible synthesis.

If, as I have shown, Kant accepts that representations of continuous magnitudes can be generated by sensible synthesis, then he has two options. Either he assumes that the understanding can synthesise infinitely many parts, or he assumes that by synthesising finitely many parts the understanding can produce the intuition of something that is infinitely divisible. In other words, Kant has to reject either the second or the third premise. Regardless of which one he rejects, the fact that he is willing to allow that one and the same object can be intuited as a continuous as well as an extensive magnitude shows that he would not accept the argument from the infinite divisibility of space.