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Constructivism in Kant's theoretical philosophy

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We set forth what one may call a “constitutional reading” in opposition to the traditional widespread “constructivist reading” of the object of cognition. In the light of the so-called one-object view reading of Transcendental idealism, the object of cognition is nothing but the object that exists in itself insofar as it appears to our cognitive apparatus. The object exists *mind-independently*, while our cognition of the same object must be *mind-independent*. The constructivist reading mistakes the epistemological problem of *how we come to cognize mind-independently that what we represent* (“the constitutional view”) are mind-independent objects with the Berkeleyan ontological problem of *how we construct objects out of an undifferentiated, unstructured manifold* (the constructivist view) My diagnosis is as follows. The first reason is the traditional “two-worlds view” reading of Kant’s idealism: if we take what exists *in itself* and the object of cognition as distinct things, then we must conclude that the object of cognition is a mind-dependent construction. Constructivist readers mistake the *mind-dependent nature of our human cognition* of objects for the *putative mind-dependent nature of the known object*. The second reason is overintellectualization. Constructivist readers mistake the objectifying syntheses of the imagination, below the threshold of self-consciousness, for cognitive conceptual operations by means of which we cognize (*erkennen*) the objects of cognition, or so I shall argue.

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Introduction

In Kant's philosophy of mathematics, "construction" means to exhibit in a priori or pure intuition an object correspondent to a concept. Even though Kant explicitly denies that philosophy can proceed by constructions of concepts, he claims *that a priori cognition is only possible insofar as it makes its objects possible*. In his famous Copernican Revolution, we can read the following:

Hitherto it has been assumed that all our cognition must conform to objects. But all attempts to extend our cognition of objects by establishing something in regard to them a priori, by means of concepts, have, on this assumption, ended in failure. We must therefore make trial whether we may not have more success in the tasks of metaphysics, *if we suppose that objects must conform to our knowledge. This would agree better with what is desired, namely, that it should be possible to have cognition of objects a priori, determining something in regard to them prior to their being given.* (Bxvi, emphasis added)¹

This passage echoes Kant's famous letter to Hertz (see Longuenesse, 1998). There, Kant recognizes a problem that his *Dissertation* left open: how can concepts agree with objects, which are independent of our understanding? (see AA. X, 130; pp. 71–72).

In this first scenario, the given object makes sensible representation possible. Sensible representation is nothing but the way that noumena (in the negative sense) appear to us as empirical things. That is the reason why Kant takes representation and appearances as synonyms in the *Critique*. The second possible scenario of correspondence between a representation and its object is when the representation makes the object possible, and it is here where our problem emerges (see Longuenesse, 1998; Kant, AA. X, 130; p. 71). The question is: what does it mean to claim *that categories make possible the object of an experience*? According to Henrich:

What constitutes a particular is there a product of construction; it is not something given. But in this respect, it is also different from the sum of its properties, even though the construction that has this particular as its result can only be produced by properties combined in relation to it. (1994, p. 152, emphasis added)

Novalis summarized the leading idea in one sentence: "we can only know insofar as we make" (Hemsterhuis Studien, II 378). Yet, the view is quite widespread in Kant's scholarship. Indeed, the idea reading traces back to the Feder–Garve review (1989) that portrays Kant's idealism as similar to Berkeley's. For example, in his classic commentary Smith claims that Kant endorses the Berkeley thesis that "objects are nothing but ideas" (1918, pp. 304–305). Likewise, for Turbayne Kant's external objects have the same ontological status Locke and Descartes attribute to ideas (1955, p. 234). More recently, Strawson claims that the Kantian physical world "only seems to exist, [but] is really nothing apart from perceptions" (1966, p. 238). In the same vein, Guyer claims that Kant's findings "degrade ordinary objects to mere representations of themselves, or identify objects possessing spatial and temporal properties with mere mental entities" (1987, p. 335) and also that according to Kant spatial objects need to "be reduced to what are ontologically merely states of the self, in order to render them safe from doubt" (1987, pp. 280–281). Finally, Van Cleve holds that according to Kant objects in space and time are "logical constructions out of perceivers and their states" (1999, p. 11). In a nutshell, the claim is that objects are *logical and ontological constructions out of undifferentiated data, that is, out of raw, non-representational material*, by means of concepts and higher-order faculties. Let me call this the constructivist reading.

In this paper, we set forth what I call a "constitutional reading" in opposition to the traditional widespread "constructivist reading" of the object of cognition. In the light of the so-called one-object view reading of Transcendental idealism, the object of cognition is nothing but the object that exists in itself insofar as it appears to our cognitive apparatus. The object *exists mind-independently*, while our cognition *of the same object must be mind-independent*. The constructivist reading mistakes the epistemological problem *of how we come to cognize mind-dependently that what we represent* ("the constitutional view") are mind-independent objects with the Berkeleyan ontological problem *of how we construct objects out of an undifferentiated, unstructured manifold* (the constructivist view) My diagnosis is as follows. The first reason is the traditional "two-worlds view" reading of Kant's idealism: if we take what *exists in itself* and *the object of cognition* as distinct entities, then we must conclude that the object of cognition is a mind-dependent construction. Constructivist readers mistake *the mind-dependent nature of our human cognition* of objects for the *putative mind-dependent nature of the known object*. The second reason is overintellectualization. Constructivist readers mistake the objectifying syntheses of the imagination, below the threshold of self-consciousness, for cognitive conceptual operations by means of which we cognize (*erkennen*) the objects of cognition, or so I shall argue.

We set forth what one may call a "constitutional reading" in opposition to the "constructivist reading." In the light of the so-called one-object reading of Kant's idealism, the object of cognition is nothing but the object that exists in itself insofar as it appears to our cognitive apparatus as an empirical object. Accordingly, the object of cognition must exist mind-independently, while our cognition of it must be mind-dependent. The constructivist reading *mistakes the epistemological problem of how we come to cognize (erkennen) that what we actually represent* are mind-independent objects with the *Berkeleyan ontological problem of how we construct the objects of cognition out of a chaotic, undifferentiated, and unstructured manifold of data*. My diagnosis for the mistake is as follows. The first reason is the traditional "two-worlds view" of Kant's idealism: if we take what *exists in itself* and *the object of cognition* as distinct things/entities, then we must conclude that object of cognition is a construction. The second is overintellectualization. Constructivist readers mistake the objectifying syntheses of the imagination, below the threshold of self-consciousness, for cognitive conceptual operations by means of which we cognize (*erkennen*) the objects of cognition, or so I shall argue.

How shall one argue for my constitutional reading? After this introduction, the next section is devoted to a reassessment of the key assumption that sensibility provides us with only an undifferentiated and unstructured manifold. To be sure, there is one passage in the *Critique*, namely, A111, where Kant *seems* to support the constructivist reading that without categories what remains is an undifferentiated manifold of data. Yet, on closer inspection, this is a misreading of A111 and of the A-Deduction. For one thing, Kant's main focus of his A-Deduction is Hume's challenge to reason, that is, the challenge to grounding the so-called principle of *uniformity of nature*. The skeptic-like hypothesis of a purely sense-data experience is rather a straw figure. Accordingly, rather than rebutting the skeptic-like hypothesis of a purely sense-data experience, Kant is attempting to meet Hume's challenge by showing that nature must be uniform *under the assumption that cognition (Erkenntnis) of objects must be possible*. The substance and sum are that there is no textual support for the assumption that what is given to our senses is some undifferentiated, unstructured, and chaotic manifold of impressions and, therefore, no textual support for the constructivist reading.

In the following section, we argue that the constructivist reading also misreads the key Kantian notion of synthesis of apprehension by imagination. Apprehension is not the assembling of undifferentiated and unstructured data guided by categories. Instead, it is the cognitive operation that, under the threshold of self-consciousness, enables us to single something out as a unity *even without being able to identify that unity by means of a concept*. In this short section, my argument is of a systematic rather than a historical nature.

Yet, my point against the mainstream reading of the synthesis of apprehension as a logical construction of objects out of raw material does not stop here. By appealing to both the A- and B-Deductions, in the final sections we argue that the synthesis of apprehension does not entail categories. To be sure, categories are necessary for the cognition (*Erkenntnis*) of what is previously apprehended *as an object*. Yet, it is not a condition for apprehension itself. The object of cognition is not a logical construction out of *undifferentiated data*. The sum and substance are that the constructivist reading has nothing to be recommended.

The swarm of appearances

If we can know the object of experience only insofar as we logically and ontologically construct it by means of higher-order faculties, the presupposition is that what is given to human sensibility is only a chaotic, undifferentiated, and unstructured manifold of sensations/impressions/data, etc. The question is: has Kant ever assumed such a claim in his theoretical work?

In the opening paragraph of the Transcendental Esthetic Kant speaks of a “manifold of appearances” (*Mannifaltige der Erscheinungen*). But what are these? Particular instantiations of properties such as “impenetrability, hardness, etc.” (A21 = B35). What are those? They are nothing but properties that physical objects instantiate. We come to the same conclusion when we consider Kant’s example of the manifold of appearances involved in the sensible intuition of a house. What are those? They are structured properties such as windows, doors, a roof, etc. as a house seen from a distance (see JL, *Intro.*, V, AA, 9: 33; pp. 544–545). Window, doors, roofs, corridors, etc., of a house can hardly be considered as a chaotic, amorphous, undifferentiated, and unstructured manifold of data, let alone something outside of space without extension.² So, what might Kant have in mind with his “manifold of appearances?” Something as simple as this: you see and touch a stone, and thereby you experience its impenetrability, its hardness, etc., even though you do not need to possess the concepts of “stone,” of “impenetrability,” of “hardness,” of “color,” let alone the a priori concept of a substance. Given that, what you experience by sight and touch is not something chaotic, undifferentiated, or unstructured.

Be that as it may, there is a single passage in Kant that gives rise to the misleading idea that what is given is a manifold of unstructured data:

Unity of synthesis in accordance with empirical concepts would be entirely contingent, and, were it not grounded on a transcendental ground of unity, it would be possible for a swarm of appearances (*ein Gewühle von Erscheinungen*) to fill up our soul without **experience** (*Erfahrung*) ever being able to arise from it. But in that case, all relation of **cognition** (*Erkenntnis*) to objects also disappears, since the appearances would lack the connection that universal and necessary laws demands, and would thus be intuition with no thought or cognition (*Erkenntnis*), and would therefore be as good as nothing for us. (A111. *Emphasis in bold added*)

What does the passage say? Literally: the simple unity of synthesis in accordance with empirical concepts, but not grounded in the transcendental unity of pure concepts of

understanding, would leave us with a “swarm of appearances.” Yet this leaves us with the intriguing question: what is a “swarm of appearances?”

Three prominent contemporary scholars have suggested that in this passage Kant is contemplating some skeptic-like hypothesis of a purely sense data experience to be rebutted at the end of his Deduction. To my knowledge, Strawson (1966) was the first. According to his reading of A111:

If appearances were not such as to allow of knowledge expressible in objective judgments, they would be “for us as good as nothing” (A111); they would be merely “a blind play of representations, less even than a dream” (A112). Or again, in an awkwardly expressed passage, Kant says that if it were accidental that appearances should fit into a connected whole of human knowledge, then it might be that they did not so fit together, were not “associable” in the required way; and “should they not be associable, there might exist a multitude of perceptions, and indeed an entire sensibility, in which much empirical consciousness would arise in my mind, but in a state of separation, and without belonging to a consciousness of myself. This however is impossible.” (1966, pp. 99–100)

In a similar vein, Wolff reads Kant’s swarm of appearances as what James calls a chaotic blooming, buzzing world of appearances:

The crux of the argument is the assertion that appearances could be given in such a way that the pure concepts would find no application to them. In the words of William James, we would experience a “buzzing, blooming confusion.”... Now, when the problem is posed in this way, it has no solution, for what Kant aims to prove is precisely that appearances cannot be given to us unless they conform to the pure concepts. (1970, pp. 93–94)

Rather than dwell on the inconsistency of the Deduction, we may simply view this passage as an introduction that assumes a theory whose essentials Kant eventually intends to disprove. (1970, p. 94)

Allison reiterates the same idea decades later:

The possibility, which Kant here alludes, calls to mind Descartes’s notorious specter of a malignant genius, who systematically deceives us regarding our most evident cognitions....

Kant’s worry in the former is analogous to the Cartesian one, in that both are concerned with what might be termed a “cognitive fit.” Nevertheless, they differ radically in their understanding of the ingredients of fit... For Kant, the ingredients are two species of representations, and the worry is that the deliverances of sensibility might not correspond to the a priori rules of thoughts. Accordingly, the Kantian specter is one of cognitive emptiness rather than global skepticism. (2004, p. 160)

Without pure concepts, our experience would be like James’s baby’s undifferentiated, unstructured, and chaotic manifold. In light of this, Kant’s problem of TD is to rule out those skeptic-like scenarios by proving against “the skeptic” that we do overcome the undifferentiated, unstructured manifold of our sensibility and start to represent objects with the help of categories. Constructivists take “data” in the empiricist sense of subjective-sense-impressions, that is, as mind-dependent entities, what Henrich in the passage quoted below calls “qualia” (1994, p. 152). By means of concept, the mind logically constructs mind-independent particulars out of the manifold of qualia.³

The question is: what does Kant ultimately mean with “a swarm of appearances.” As the passage indicates, what he had in mind is that empirical concepts without the categories of understanding could not provide a *lawlike connection* between appearances: “(without categories) the appearances would lack the connection that universal and necessary laws demand” (A111). Kant reiterates the same thought in several passages of his A-Deduction like this one:

Now, however, representation of a universal condition in accordance with which a certain manifold (of whatever kind) can be posited is called a rule, and, if it must be so posited, a law. All appearances therefore stand in a thoroughgoing connection according to necessary laws, and hence in a transcendental affinity, empirical affinity is mere consequence. (A113–114, original emphasis in bold)

What is at stake? According to Kant’s examples: the cinnabar that now appears red, could later appear black; on the longest day the land that now appears covered with fruits, could appear with ice and snow (A100–101). In the A-Deduction Kant is mainly addressing Hume’s challenge to reason, namely the challenge to provide a ground for the uniformity of reason. There is no space to go into the details of the A-Deduction here. The point is that nothing indicates that without categories our experience would be reduced to a chaotic stream of data. Likewise, nothing indicates that without categories our experience would be reduced to James’s buzzing, blooming confusion. The constructivist reading misinterpreted the key paragraph of A111.

What is at stake for Kant in his A-Deduction is not the possibility of a purely sense data experience, namely of an experience of some chaotic manifold of undifferentiated or unstructured sense data. Instead, what is in question for Kant is the principle of uniformity of nature that Hume calls into question and Kant named “the challenge of Pure Reason” (PROL, 4: 275:7). This is the principle of induction of natural science. There is no space to go into the details of Kant’s arguments of the A-Deduction here. Yet, Kant’s argument shows that categories necessarily apply to all objects of our sensible intuition not because they are necessary conditions for sensible intuition or even conditions for sensible apprehension, but rather because categories are necessary for the *cognition* (*Erkenntnis*) of what is given to sensible intuition as objects.

Now, by showing that categories are conditions for the cognition of objects as such, Kant is at the same time meeting Hume’s challenge to reason. For one thing, if we have cognition, we must assume that nature is uniform (*Gleichmäßigkeit*). Kant’s official answer to Hume’s challenge to reason is this:

If a body is illuminated by the sun for long enough, then it becomes warm. Here there is of course not yet a necessity of connection, hence not yet the concept of cause. *But I continue on, and say: if the above proposition, which is merely a subjective connection of perceptions, is to be a proposition of experience, then it must be regarded as necessarily and universally valid. But a proposition of this sort would be: The sun through its light is the cause of the warmth. The foregoing empirical rule is now regarded as a law, and indeed as valid not merely of appearances, but of them on behalf of a possible experience, which requires universally and therefore necessarily valid rules.* (PROL, AA 4: 312, emphasis added)

The sum and substance are that there is no textual support for the widespread assumption that what is given to our senses is some undifferentiated, unstructured, and chaotic manifold of impressions. And without textual support for such an assumption, the constructivist reading is also groundless.

Apprehension

Now, if the manifold of sensible intuition is not James’s blooming, buzzing world of sensible appearances, the question is how should we construe Kant’s notion of the synthesis of apprehension? In the opening paragraph of the A-Deduction, we can read the following statement of Kant’s:

Now in order for unity of intuition to come from this manifold information (as, say, in the representation of space), it is necessary first to *run through* and then *take together* this manifold information, which action I call the **synthesis of apprehension**, since it is aimed directly at the intuition, which to be sure provides this information but can never interpret it, and indeed is contained **in one representation (in einer Vorstellung)**, without the occurrence of such a synthesis. (A99, emphases in cursive are added)

Henrich’s greatest contribution to Kant’s scholarship is to call attention to Kant’s emphasis that TD contains an important restriction: “he (Kant) established that intuitions are subject to categories *insofar* as they, as intuitions, already possess unity” (B153). This restriction is marked by Kant’s capitalizing the first letter in the expression “in an intuition” (“*in Einer Anschauung*”) (1969, p. 645). Henrich’s commentary is *prima facie* restricted to the B-Deduction as the so-called two-steps-in-one-proof. We will come back to Henrich’s two-steps-in-one-proof later on in this paper. However, in the quoted passage Kant also speaks of apprehension of the manifold contained *in one representation* (A99). Given this, categories are only valid for the given objects of sensibility *insofar* as the manifold is contained *in one representation*. Now, the reader must wonder what Kant has in mind. Unfortunately, Heinrich never provided any clarifying answers.

Be that as it may, Kant’s intention was quite clear from the beginning: by assuming that categories cannot be conditions for sensible intuitions: “appearances might very well be so constituted that the understanding should not find them to be in accordance with the conditions of its unity” (B123, Section 13). The starting point of the A-Deduction cannot be the sensible intuition with its manifold of what appears, but rather the awareness of the *unity* of what is apprehended. Given this, it is beyond doubt that to prove the validity of categories is to show somehow that *categories are only valid for those intuitions that already show such unity*. Given this, Kant’s strategy is clear: if sensible intuition is independent of categories, the consciousness of the unity of sensible intuition could not take place without categories. Thus, Kant needs a *tertium* that connects understanding to sensibility, *viz.* the faculty of imagination.

Here we come back to the main topic of this paper. There are two possible and excluding readings here. The first is the constructivist one: without categories, we could not even *represent* one single object in sensible intuition. Again, without categories we would be dealing with an undifferentiated chaotic manifold of sensations. That is the reading favored, for example, by Smith in his translation of the *Critique*, since he reads the unity of intuition as a *single representation* (1918, p. 160). The second reading is the one that I am proposing here. To be sure, the *recognition* (*Erkenntnis*) of this unity *as an object as such* crucially depends on categories. Still, the *unity* of intuition is independent of any concepts whatsoever.⁴

What do constructivist readers have to say here? If we assume the constructivist reading, Kant’s aim in the A-Deduction is to show that this unity is a product both of the syntheses of imagination and understanding. Creatures, without the higher-order faculty of understanding, have the bad luck of living in James’s blooming, buzzing world of sensible appearances. However, chaotic those sense impressions might be, they are all in time as

the internal form of intuitions. As subjective inner sense-impressions (*Eindrücke*), they all occur during time, as part of the succession of everything that is occurring. Therefore, perception of objects requires, first, the *run through* of these subjective inner sense impressions in order to *integrate them* as pieces of a puzzle, that is, as of the same singularity.

The first question we must address here is whether Kant with his theory of synthesis (and his theory of experience and cognition) has a conceptual connection or a real mental process in mind? Strawson is famous for his diagnosis: Kant mistook the conceptual connection (Strawson's "austere argument") for a real mental process (Strawson's "transcendental psychology"). In this way, Strawson turns the question into a meta-philosophical one: what is philosophy for Kant at the end of the day? I believe that Kant never mistook Strawson's austere metaphysician for a transcendental philosophy. For one thing, just like Kant, I do not believe that there is a gap between Kant's conceptual analysis of experience and Kant's cognitive theory of cognition. In this regard, by doing his conceptual analysis Kant is also doing his transcendental psychology at the same time. But I do not wish to enter into this metaphilosophical debate about Kant's conception of philosophy.

But let us assume, as the constructivist reader does, that Kant is describing a real mental cognitive process just for the sake of argument. Given this, my first argument against constructivist reading is a cognitive one. If we take Kant as describing a real cognitive process, we cannot assume that with his words "running through" the data and "taking them together," he is describing something undertaken self-consciously. To be sure, what reaches our retina is a blind manifold of data, called proximal stimulation. From those data to the representation of objects, operations called "objectifications" are required (see Burge, 2010). We become conscious of objects only insofar as we are able to represent constant distal objects and properties despite the great variation of proximal stimulation. So, for example, we are able to perceive the same shade of color despite the great variations of illumination; we are able to perceive the same size despite the variations of distance to the object, etc. What are those cognitive operations of "objectifications?" They are certainly not deeds of a self-conscious subject. Nothing that a conscious agent does or fails to do contributes to the fact that he sees the same particular or the same property.

Rather, the representation of the same mind-independent constant object or property relies on subliminal operations, below the threshold of transcendental self-consciousness (apperception, following algorithms). As real mental occurrences, apprehension is independent from recognition, even though recognition depends on apprehension and reproduction. They even take place in different areas of the brain: while visual apprehension takes place in the visual cortex, recognition takes place in the prefrontal cortex.

I end this section by claiming that if we take Kant's apprehension as a real cognitive process, the constructivist reading is doomed to fail. The argument here is of a systematic rather than a historical nature (as in the last section). For all, we know from the recent achievements of cognitive science, the ability to single out something as a unity is quite independent of any conceptual or higher-order intellectual activities. In Kantian terms, the ability to single out a unity out of properties or features is something that takes place below the threshold of transcendental self-consciousness. In the following sections, I show that the constructivist reading also fails for historical and even philological reasons.

Cognition in the A-Deduction

But let me resume Henrich's key claim, namely that *categories are valid only for the manifold contained in one representation*.

According to the constructivist reading, the REPRESENTATION of an object also relies on what Kant calls in the A-Deduction an empirical synthesis of imagination:

It is, to be sure, a merely empirical law in accordance with which representations that have often followed or accompanied one another are finally associated with each other. They are thereby placed in a connection in accordance with which, even without the presence of the object, one of these representations brings about a transition of the mind to the other in accordance with a constant rule. (A100)

Actually, there is no conceptual connection whatsoever between the synthesis of apprehension and the synthesis of reproduction. Nowhere does Kant claim that without reproduction apprehension would be impossible. He only claims that reproduction usually follows apprehension. The key point is this:

Without the consciousness that that which we think is the very same as we thought a moment before, all reproduction in the series of representations *would be in vain*. For it is a new representation in our current state, which would not belong to the act through which it had been gradually generated, and its manifold *would never constitute a whole*, since it *would lack the unity that only consciousness can obtain for it*. If, in counting, I forget the units that I now have before my senses, I would not cognize (*erkennen*) the generation of the multitude through this successive addition of one to the other, and consequently I would not cognize (*erkennen*) the number; for this concept consists solely in *the consciousness of this unity of the synthesis*.

The word "concept" itself could effectively describe this remark. For it is one consciousness that unifies manifold information that has been successively processed, and also reproduced, into one representation. (A103, emphasis added)

That is what Kant calls the synthesis of recognition by means of concepts. Again, before proceeding, there is no conceptual connection between the synthesis of apprehension and the synthesis of reproduction. Likewise, there is no conceptual connection between the synthesis of reproduction and the synthesis of recognition. Kant is not claiming that without the synthesis of recognition through concepts, the synthesis of reproduction and the synthesis of apprehension *would be impossible*. In contrast, what he is clearly stating here is that without recognition by means of concepts reproduction *would be in vain*, clearly indicating that *reproduction could take place without concepts*.

Yet, the passage is ambiguous. On the one hand, Kant seems to claim that without recognition through concepts, "the manifold *would never constitute a whole or a unity*." On the other hand, he seems to claim that without recognition through concepts one would be never be "*conscious of this unity of synthesis*." Here lies the bone of contention between the constructivist reading and the constitutive reading that I am proposing here. The first quoted sentence suggests that *without concepts we would never be able to represent a unified whole, that is, an object*.

By contrast, the second quoted sentence suggests that without recognition by concepts, *we would never be able to be conscious of the preexistent unity of synthesis*, that is, we would never be able to recognize the unity that synthesis has provided as *an object*. Again, the first claim is constructivism. The second is my recognition reading. Let us consider the three key passages in sequence:

And here it is necessary to explain what is meant by the expression "an object of representations." (...) What does one mean, then, if one speaks of an object corresponding to and therefore also distinct from the cognition? It is easy to

see that this object must be thought of only as something in general = X, since outside of our cognition we have nothing that we could compare to this cognition as corresponding to it.

However, we find that *our thought of the relation of all cognition to its object* carries something of necessity. Since the latter is regarded as that which is opposed to our cognitions being determined at pleasure or arbitrarily, rather than being determined a priori, insofar as they are to relate to an object, *our cognitions must also necessarily agree with each other in relation to it, i.e., have that unity that constitutes the concept of an object.* (A104, emphasis added)

All cognition (*Erkenntnis*) requires a concept, however imperfect or obscure it may be; but as far as its form is concerned the latter is always something general, and something that serves as a rule. Thus, the concept of body serves as a rule for our cognition of outer appearances by means of the unity of the manifold that is thought through it. However, it can be a rule of intuition only if it represents the necessary reproduction of the manifold of given intuitions, hence, the synthetic unity in the consciousness of them. Thus, in the case of the perception of something outside of us the concept of body makes necessary the representation of extension, and with it that of impenetrability, of shape, etc. (A106, emphasis added)

Now a further parallel ambiguity is present in those passages. The issue now is what Kant means with “the expression: an object of representation?” On the one hand, he could have in mind the ontological status of a mind-independent object, *conceived as a unity of sensible representations according to conceptual rules.* That is the traditional constructivist reading. According to Henrich, for example, an object for Kant is, ontologically speaking, a complex of predicates or properties: “objects either are themselves complexes or, in any event, are complexly characterizable particulars” (1994, p. 132). Here is the best example of the confusion of the epistemological question of how we recognize objects with the un-Kantian ontological question of whether objects are simple or complex. If we follow Henrich, Kant is arguing here (A106) that only when we unify the manifold of sensible representations according to a rule (just like assembling the manifold of pieces of a puzzle in order to form a unified picture), are we able to *represent an object in sensibility* out of the manifold of representations as “a complex of properties or states” (1994, p. 132). The reference (*Beziehung*) to an object only takes place in judgment when we are able to unify the manifold of qualia according to conceptual rules. Kant provides us with examples of the concept of a triangle (A105) and the concept of a body (106). A body as the object of my sensible representation is nothing but the unity of those pieces of a puzzle (impenetrability, shape, etc.) that I manage to assemble according to the rule provided by the concept BODY. Henrich finds support for his constructivist reading of objects as an ontological complex of qualia in Reflection 6350, presumably composed in the summer of 1797, when Kant writes:

What is an object? That *whose representation* is a complex of a number of predicates appertaining to it. The plate is round, warm, of pewter, etc. etc. Warm, round, of pewter, etc. etc., is no object, but very well warmth, pewter, etc. etc.

An object is that in *whose representation* various others [i.e., various elements] can be thought as synthetically combined. (Refl. 6359, AA, emphasis added)

An object is merely something in general which we think through certain predicates that constitute its concept. (Refl. 4634, AA)

On closer inspection, though, Kant is not claiming that an object is the complex product resulting from the construction of properties/features such as the synthetic unity of properties or qualia: the plate is the synthetic unity of the properties of being round, warm, of pewter, etc. Instead, what he is stating is that an object is something in general *which we can only think of or recognize by means of those features of its concept* (Refl. 4634). So, what Kant means with “the expression: an object of representation” is not the ontology of the object as something complex. Rather, Kant’s question is purely epistemological, namely how we *cognize (erkennen)* that which is unified, apprehended, and reproduced *as an object*. We recognize something as an object by means of conceptual rules. But that invites the question: in which sense can concepts serve as rules for the synthesis of recognition of the previous existent unity of imagination (A106)?

According to Kant, concepts contain features (*Merkmale*) in what he calls an analytical unity of consciousness. So, for example, when we think of a body, we think of something impenetrable, shaped, extense, etc. Now, on the basis of those features of the concept BODY (the analytical unity), we are able to cognize something *as a body* whenever we perceive something instantiating those features: impenetrable, shaped, extense, etc. But how can I support my reading?

Now my argument for rejecting the traditional constructivist reading is philological. As we have seen, like the word “experience” (*Erfahrung*), “cognition” (*Erkenntnis*) and “consciousness” (*Bewusstsein*) are technical terms in Kant’s philosophy. When Kant claimed “All cognition (*Erkenntnis*) requires a concept,” what he had in mind was the recognition of something unified by imagination *as a mind-independent object*, rather than any construction of something mind-independent out of a chaotic manifold of data. Moreover, “consciousness” does not mean here the phenomenal feel (or the what-it-is-like properties). Again, what it means is conceptual cognition: the “concept consists solely in the *consciousness* of this unity of the synthesis” (A103). Without the *consciousness* that that which we think is the very same as before, all reproduction in the series of representations would be in vain (A103). In a nutshell, it is only by means of concepts that we become conscious of what we have been representing *as an object*.

Now we are in a better position to understand why Kant capitalized the “in one representation” at the beginning of his A-Deduction. As Henrich has correctly remarked, categories are valid only for the manifold contained in one representation, which means that the starting-point of the A-Deduction is not sensible intuition, but rather the consciousness of the manifold of sensible intuition “as contained in one representation.” It is the consciousness of the manifold of features contained in one representation that entails categories. But what precisely does Kant mean by that? The answer is straightforward: it is the consciousness of the given manifold *as a unity*, i.e., *mind-independent objects*. Categories are valid because it is only by means of them that we can *become conscious that* we represent mind-independent objects by the senses, that is, by intuition and imagination.

Cognition in the B-Deduction

Let us turn now to the key passages of the B-Deduction. Kant explains his two-steps-in-one-proof in Section 24 as follows:

The pure concepts of the understanding are related through *the mere understanding to objects of intuition in general*,

without it being determined *whether this intuition is our own* or some other but still sensible one, but they are on this account *mere forms of thought*, through which no determinate object is yet *cognized*. (B150. Emphasis added)

To begin with, Kant claims that his B-Deduction shows that categories are conditions of possibility of “the mere understanding of objects in general.” Yet, Kant also needs to show that categories are also conditions of “the objects of our own intuitions.” One wonders: what is the big difference? In Kant’s words, if successful, the first step has proven that categories are necessary conditions for *thinking* of something sensorily given in intuition in general as something that exists objectively. That said, the first gap in the B-Deduction is between understanding and sensibility. And what bridges this gap is *the transcendental apperception* as “the logical form of a judgment in general” (B142). For example, without applying the category of substance to what appears to me, my judgment that bodies are heavy could not be objectively true or false. Yet, this is obviously not enough. Thus, what is involved in the second step? The clue to understanding Kant’s two-steps-in-one-proof is the difference between to *think* of something objectively and to *cognize* it objectively. Kant claims that without the categories we are not able of *cognizing* the objects of our senses. Accordingly, without Kant’s categories natural science and, in particular, geometry would be groundless.

Let me summarize the B-Deduction. Given that, Kant’s categories are first required for *thinking* that something exists objectively (first step of B-Deduction). But that is not enough. Kant has to prove that the categories are conditions for *the recognition* that something sensorily given in space exists objectively (second step of B-Deduction). Now if the gap in the first step is between understanding and sensibility, and what bridges the gap is Kant’s transcendental apperception, the gap in the second step is between cognition and sensibility, and what bridges the gap this time is what Kant calls “figurative synthesis” in accordance to understanding: “an effect of the understanding on the sensibility” (B154).

This reading provides us with the key of the troublesome footnote. What Kant had in mind with “space, represented as an object as is really required in geometry” (B160n. Kant’s original emphasis in bold)? It is certainly not space as an outcome of the ontological construction of a manifold of places. Rather, what Kant has in mind is the *cognition* of space as something existing objectively: without the category of quantity, we could never cognize whatever we represent in space as something (an object) that exists objectively. Given that, “the formal intuition that gives unity of the representation” (B160n) is not a replacement for the “pure intuition,” the representation of the form of intuition, but rather the *cognition* of space as a mind-independent object of science.

Data availability

This article does not contain any material or data that support the study other than the primary and secondary literature cited throughout the text.

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Notes

- References to Kant’s works are given as in the German Academy edition: Gesammelte Schriften, herausgegeben von der Königlich Preussischen Akademie der Wissenschaften, 29 vol (Berlin: 1902–1983; 2nd edn, De Gruyter, Berlin, 1968, for vols I–IX). They are indicated as follows: abbreviation of the title of the work, followed by

AA., volume, and page. For the Critique of Pure Reason, the references are shortened, in keeping with current practice, to the pagination of the original edition indicated by A for the 1781 edition, and B for the 1787 edition.

- But if they are far from being chaotic and undifferentiated, in which sense are they subjective? “Subjective” in Kant is a technical word whose ambiguity parallels the ambiguity of the expressions “outside us” and “in us” (see A373). It has an empirical and a transcendental meaning. According to the empirical sense, “subjective” means what is personal and context dependent as “determinations of the inner sense” (B139). For example, when I lift a stone, it feels heavy to me. But without the category of substance, I cannot recognize whether the stone is really heavy. By contrast, in its transcendental sense, “subjective” means what is not known in itself. The point is that there is no reason whatsoever to assume that the manifold of appearances is subjective in the empirical sense in Kant’s TA.
- Yet, there are two lines of interpretations. A first group denies that those data are even extensive, thereby claiming that even space and time are products of spontaneity. Bergson, for example, claims that, for Kant, “the sensations by which we came to form the notion of space are themselves without extension and simply qualitative” (1910, p. 45). In the same vein, Smith states that “the manifold as a given is not in space and time,” and that “sensations have no spatial attribute of any kind” (1918, pp. 85–86). Waxman speaks of the synthesis of “completely amorphous data” (1991, p. 220). Longuenesse speaks of the synthesis of a “qualitative manifold” that is “present in an undifferentiated way,” and that it is a “manifold (of sensations, but not of intuitions...)” (1998, p. 37 and p. 221). De Vleeschauwer, Sellars, and Pippin go even further by claiming that such “data” not only lack extension, but they are also supposed to be “atomic” (see De Vleeschauwer, 1939, II: pp. 242–243, Sellars 1968, pp. 7–8, and Pippin, 1982, pp. 29–33). Other constructivist readers do not go as far as making space and time products of spontaneity. Rather, they argue that such impressions would be spatiotemporal, but would lack unity or structure, as this would be up to the synthesis of understanding to provide. Robinson, e.g., argues that one cannot speak of “impression” or anything that suggests unity, since every unity would necessarily be due to understanding, maintaining then that this sensory manifold should be understood as “a (still) undifferentiated and non-individual, which provides the material for differentiation and individuation” (1984, p. 406). In the same vein, Allison speaks of “sensory data” (2004, p. 79), and Ginsborg of “sensory material” (2008, pp. 65–67).
- Here lies the bone of contention: while the conceptualist reading of Kant claims that without categories, *the unity of sensible intuition would be impossible*, nonconceptualists (like myself) claim that without categories, the cognition (*Erkenntnis*) of the unity of sensible intuition would be impossible.

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