

## Categories, Necessity, and the Proof-Structure of the B-Deduction

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Since Henrich (1969), it has been widely recognized among Kantian scholars that the argument of the B-Deduction contains two different moments or steps, which correspond with §§15-20 and §§21-27 of the 1787 edition of the *Critique of Pure Reason*. Unsurprisingly, it remains a matter of considerable disagreement how one should understand the proper nature of each step and the logical connection between them. In the present paper, I sketch an interpretive model which aims at contributing to that discussion. In section (1), I propose a set of conditions of adequacy upon the interpretation of the proof-structure of the B-Deduction, taking issue with some literature. In section (2), I advance a model of analysis according to which the distinction between the two halves of the B-Deduction refers to a difference, not in domains of application of the categories, but in the respective scopes of a same modal operator qualifying the categorial determination of the manifold of human intuition. Finally, in section (3), I develop that model in order to show that it meets the conditions set previously and brings light to certain difficult passages of Kant's text.

1. The §20 of the B-Deduction brings together the purported results of the first half of the text into a synoptic argument, the conclusion of which is anticipated in its very title: "All sensible intuitions stand under the categories, as conditions under which alone their manifold can come together in one consciousness" (B141). The ground of the argument is the connection Kant intends to have established between the necessity of relating the manifold in an intuition to the unity of apperception – as a condition of the intuition representing something to the subject – and the necessity of an *a priori* synthesis of that manifold according to concepts of an object. Such a connection between the unity of consciousness and the synthesis of representational manifolds is expressed in what Kant designates "original synthetic unity of apperception" (B143).

At first sight, the demonstration compressed in the §20 would be sufficient to attain the chief purpose of the Transcendental Deduction: to prove the necessary application of the categories to all objects of possible experience. In the §21, though, just after reviewing his argument up to that point, Kant remarks that "the beginning of a deduction of the pure concepts of the understanding has been made, in which, since the categories arise independently from sensibility, merely in the understanding, I must abstract from the way in which the manifold for an empirical intuition is given, in order to attend only to the unity that is added to the intuition through the understanding by means of the category." (B144) Thus, the reasoning developed so far would not suffice to achieve the end of the Deduction, and the

proposition argued for in the §20 should not to be taken as equivalent to the thesis of the objective reality of the categories, thanks to the abstraction in the §§15-20 from the particular form of *our* intuition (theme of the expositions of the Transcendental Aesthetic). Therefore, the remaining task of the Deduction would be to show “from the way in which an empirical intuition is given in sensibility that its unity can be none other than the one the category prescribes to the manifold of a given intuition in general” (B145). Only then, having determined the validity of the categories “in regard to all objects of our senses”, we could consider the aim of the Deduction “fully attained” (B145).

Taking into account those observations of Kant’s, it is possible to establish the following conditions of adequacy upon the interpretation of the proof-structure of the B-Deduction:

- (C1) The argument of the B-Deduction has two parts or steps;
- (C2) The conclusion of the first step is a necessary but not sufficient condition of the conclusion of the second step;
- (C3) The second step allegedly proves the objective reality of the categories;
- (C4) Whereas the first step requires abstraction from the human form of human intuition, the achievement of the second step requires consideration of that form;
- (C5) Both parts of the argument seek to establish some kind of necessary nexus between the relation of a sensible manifold to the transcendental unity of self-consciousness (transcendental apperception) and the synthesis of that manifold according to the categories.

These adequacy conditions, which circumscribe what could be called the ‘two-steps-in-one-proof’ approach to the structure of the B-Deduction, were originally introduced (albeit not in the same fashion) by Henrich (1969). Henrich succeeded in demonstrating the structural incongruence between the A-Deduction and the B-Deduction, going against the main trend of commentary current up to that time. The distinction between the two parts of the B-Deduction, he argued, should not be treated either in terms of the contrast between objective and subjective deductions, or in terms of the contrast between ‘up-down’ and ‘bottom-up’ arguments – contrasts around which, as we know, the A-Deduction is organized. On the one hand, both parts of the B-Deduction are concerned with the demonstration *that* the categories have objective reality, without any special accent on how the cognitive faculties constitute such objectivity.<sup>1</sup> On the other hand, both parts have as a common starting-point the

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<sup>1</sup> See Henrich (1969: 643).

concept of a representational manifold, in order to prove that the representation of that manifold *as a manifold* demands its categorial determination.<sup>2</sup>

Although Henrich has accomplished to impugn the conception of a structural congruence between the A-Deduction and the B-Deduction, setting up the notion that the latter consist of “two-step-in-one-proof”, the particulars of his interpretation of Kant’s argument has not met the same acceptance. According to Henrich, the first step of the argument proves the necessary application of the categories in relation only to a restricted domain of intuitions: intuitions are subject to categorial determination insofar they already possess unity. The second step removes that restriction on the basis of the unity of space and time, concluding that all intuitions are unitary and, consequently, conform to the pure concepts of understanding. Unfortunately, such approach can hardly avoid treating the second step as no more than a universal instantiation, or inference from genus to species. That would not only trivialize the second step, but would also pass over the logical possibility of disagreement between categories and objects of intuition, stated in the §13 and crucial to the very intelligibility of the problem the Deduction aims at solving (more on that below). Let me add, then, a further adequacy condition of the analysis of the B-Deduction’s structure:

**(C6)** We should exclude any interpretation which takes the nexus between the first and the second steps of the argument merely as the relation of a general clause to its particular instantiation.<sup>3</sup>

Following Henrich’s work, but without subscribing the details of his analysis, there has been a series of attempts to make sense of the structure of the B-Deduction in terms of “one-proof-in-two-steps”. However, underlying such attempts is a tendency to suppose that the distinction between the two parts of the whole argument concerns a difference between two domains of application of the categories. Allison (1983) notoriously distinguishes the two parts of the B-Deduction in terms of, respectively, a proof of the objective validity and a proof of the objective reality of the categories; the former would correspond to a “logical” sense of object, supposedly related to Kant’s use of *Objekt*; the latter, to a “real” sense of object, supposedly related to the use of *Gegenstand*.<sup>4</sup> Controversies notwithstanding, the basic assumption of a different domain of application of the categories corresponding to each step of the argument is shared by authors as diverse as Aquila (1989), Keller (1998) and Longuenesse (1998). However, that assumption cannot find much support in Kant’s text, for

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<sup>2</sup> See Henrich (1969: 644).

<sup>3</sup> *Contra* Guyer (1992: 154; 1987: 77; 1986) and Howell (1992: 134-5).

<sup>4</sup> See also Allison (1986).

both in the §20 and the §26 the synthesis ruled by the categories is directed to the same kind of object, namely the object of sensible intuition (first in abstraction from the form of human intuition and then under consideration of that form). Accordingly, let me state as an adequacy condition to the interpretation of the B-Deduction:

(C7) The distinction between the two steps of the B-Deduction should not be taken as corresponding to two distinct domains of application of the pure concepts of the understanding.

In the recent revised edition of his classical book, Allison acknowledges that his analysis of the structure of the B-Deduction in terms of a double distinction between objective validity and reality and between *Objekt* and *Gegenstand* was not on the right track – in his own words, “introducing these considerations was both misleading and unnecessary” (2004: 476n11). He now sustains that the difference between the two steps of the argument corresponds with the “distinction between the epistemic functions assigned to the categories in the two parts of the Deduction” (2004: 162). In the first part, the categories would function as “rules for the *thought* of an object of sensible intuition in general”, whereas the second part would “establish the applicability of the categories to whatever is given under the conditions of human sensibility”, linking the categories “to the *perception* rather than merely to the *thought* of objects” (2004: 162). Such a proposal is not forcefully vulnerable to the difficulties involved in supposing two different domains of application of the categories. After all, even though we are taking the categories as applying to thought *and* to perception, in both cases it is one and the same object that is at stake: the object of sensible intuition – *thought*, on the one hand, and *perceived*, on the other. Additionally, that approach is in accordance with repeated indications in the B-Deduction about the structure of the argument, according to which the difference between the role of the categories in the two parts of the text concerns their respective functions as conditions of *thought* (in abstraction from the specific form of our human sensible intuition) and of *knowledge* of the objects given in empirical intuition (with reference to the form of our sensibility).<sup>5</sup> That contrast is related to the important dichotomy, in the §24, between *synthesis intellectualis* – “thought in the mere category in regard to the manifold of an intuition in general” (B151) – and *synthesis speciosa* – a *figurative* synthesis directed to the “*a priori* synthetic unity of the apperception of the manifold of *sensible intuition*, as the condition under which all objects of our (human) intuition must necessarily stand” (B150).

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<sup>5</sup> See B146-7, 165, 166n.

Nonetheless, it remains yet to clarify a crucial difficulty concerning the conditions of intelligibility of the very problem which the Deduction intends to solve and the compatibility between these conditions and the solution which is presented at the outcome of the argument. In the chapter immediately preceding the Deduction, Kant observes that, according to the results so far achieved – in the Transcendental Aesthetic as well in the so-called Metaphysical Deduction –, the “categories of the understanding (...) do not represent to us the conditions under which objects are given in intuition at all, hence objects can indeed appear to us without necessarily having to be related to functions of understanding, and therefore without the understanding containing their *a priori* conditions” (A89/B122). Accordingly, the question to be answered by the Transcendental Deduction would be “how *subjective conditions of thinking* should have *objective validity*, i.e., yield conditions of the possibility of all cognition of objects; for appearances can certainly be given in intuition without functions of the understanding” (A89-90/B122).

Such considerations are in apparent contradiction with the result Kant announces to have established in the Transcendental Deduction. In effect, if it is possible for objects of intuition not to be in accord with the categories, then it is not necessary for objects of intuitions to be in accord with the categories. On the other hand, if the disaccord between sensibility and understanding were not even logically possible, there would not be any *legitimate question* as to the objective reality of categories; indeed, we could not even proceed to the transcendental distinction between those two faculties of the mind. Therefore, we should add a further condition of adequacy upon the interpretation of the proof-structure of the B-Deduction:

**(C8)** The conclusion of the second step of the argument of the B-Deduction has to be shown consistent with an acceptable comprehension of the possibility of disagreement between categories and appearances.

Accordingly, although accepting the general lines of Allison’s revised approach, we should be capable to explain in what sense the necessity of the categories in regard to perception do not contradict the sense in which there is a possible disagreement between what is given to us in perception (appearances) and the rules of synthetic unity of the understanding (categories).

**2.** I would like to point to an alternative model which satisfies the interpretive requirements set above. In presenting it, I will make heuristic appeal to a distinction in non-Kantian terms; then I will show how it can help us to unravel the problem of the proof-structure of the B-Deduction in a way that is acceptable from a Kantian perspective.

The distinction I have in mind is that between *de dicto* and *de re* necessity. That distinction is traditionally depicted as a difference between necessities holding of propositions (of *dicta*) and necessities holding of things (of *rerum*). Take any proposition of the form ‘All A is B’. The modal operator of necessity can be applied to that proposition in two different ways. On the one hand, the resulting proposition could be expressed by the scheme ‘necessarily, all A is B’, according to which the first proposition is said to be necessarily true. By contrast, the initial proposition can be modified by the internal application of the modal operator, as in the scheme ‘All A is necessarily B’, according to which everything which is A has necessarily the attribute B. The two resulting propositions express, respectively, *de dicto* and *de re* necessities. Their difference is to be found in the manner how the modality is applied to the base proposition; it consists in a formal difference as to the scope of the modal operator in each case. In the first case, *de dicto* necessities, the modal operator is applied to the base proposition as whole, externally; in the second, *de re* necessities, the modal operator is applied internally, to one of the components of the base proposition.<sup>6</sup>

We can now ask: what is the epistemic significance of that distinction? As for that point, I propose that the difference between *de dicto* and *de re* necessities concerns a distinction between, respectively, propositions which elucidate the conceptual content of our thinking – necessities which hold of our thoughts about objects – and propositions which ascribe the essential or necessary (albeit not logically necessary) possession of a property to some object or kind of object. Now, the truth of a *de dicto* necessity proposition does not entail the truth of the corresponding *de re* necessity proposition. Hence, the conjunction of *de dicto* necessity proposition and the negation of the corresponding *de re* necessity proposition is consistent, or logically possible.

Succinctly put, my proposal is to understand the distinction between the conclusions of the first and second parts of the B-Deduction as a distinction between, respectively, the *de dicto* and the *de re* necessities of the categorial determination of the objects of intuition. The first step is designed to establish a proposition to the effect that the *thought* of an intuitive manifold as a manifold – hence of any intuition, as I think the diversity contained *in it* as the *its* manifold – is necessarily the thought of a correlate of that manifold – *an object* – in conformity with the categories. By contrast, the second step concerns the necessary determinations, not merely of the thought of an object of intuition, but of the sensible object itself; it aims at proving that categories afford “cognitions of things by means of intuition”

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<sup>6</sup> See Plantinga (1974: 1-13).

(B147) and that “all appearances of nature (...) stand under the categories” (B165). Such a perspective is grounded on Kant’s text, as long as the analytical character of the chief principle of the first step<sup>7</sup> and the role of the pure concepts of the understanding in the constitution of nature itself<sup>8</sup>, crucial to the second step, could be taken respectively the *de dicto* and *de re* necessities of the determination of the manifold of intuition by the categories. Now, the proper establishment of the former does not entail, by itself, the establishment of the latter, so the possibility of disagreement between appearances and categories – essential to the very intelligibility of the *problem* of the Deduction –, rather than contradicting the conclusion of the final step of the argument, solely represents the logical consistency between the conclusion of the first part and the negation of the conclusion of the second.

3. Even though the text of B-Deduction begins with considerations, in the §15, about the concept of synthesis, the grounding proposition of the argument is to be found in the initial lines of the §16. There we find the principle according to which, for every intentional representation, capable of fulfilling a cognitive role for a subject, it is necessarily possible for it to be recognized or understood as such by that subject, by means of an act paradigmatically expressed through the *I think*, which “must *be able* to accompany all my representations” (B131). Such *I think* conveys the recognition of the representation functioning as its accusative and, at the same time, the self-consciousness of the subject *as a subject* of intentional *acts* – which Kant designates *transcendental apperception*. As a direct consequence of that principle, a manifold of representations, insofar as it can be understood or recognized as a manifold, must be subject to the conditions under which it can be accompanied by an explicit act of apperception.<sup>9</sup>

Now, intuitions are characterized by Kant as singular and immediate representations: as singular, they cannot represent but one singular item; as immediate, they are – at least with respect to finite minds – given to the subject “prior to all thinking” (B132). Still, due to their intentional nature, intuitions must be capable of being recognized *as intuitions*, having to conform to the conditions under which they can be accompanied by the fundamental act of recognition expressed by the *I think*. However, since any intuition contains in itself a manifold of representations, the possibility of recognizing an intuition presuppose that its manifold can be submitted to *one* consciousness representing it as *one* manifold, namely *the* manifold of

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<sup>7</sup> See B135, 138.

<sup>8</sup> See B159, 163.

<sup>9</sup> See B132-3.

*that* intuition. In that extent, “all manifold of intuition has a necessary relation to the *I think* in the same subject in which this manifold is to be encountered” (B132).

Such unity of the consciousness of a manifold by means of the reference of that manifold to a single *I think* – hence the consciousness of a same representation *I think* in relation to a diversity of representations – is called by Kant “*analytical* unity of apperception” (B133). In the analytical unity of apperception, manifold representations are subsumed under an absolutely simple representation – the *I think* – which by itself does not distinguish any representation from the others. Since apperception accompanies or can accompany all intentional representations, the mere adjunction of the *I think* does not add content to the representing – if we understand by content of a representation that which makes it possible to tell it from the others. Now, because the *I think* express an act indissociable from the consciousness of that act, each instance of apperception brings with it the consciousness of the possibility of an indefinite diversity of other instantiations of the *I think* by the same subject. For that reason, the analytical unity of apperception is the form of every concept of the understanding, as a representation “that (as a mark) can be encountered in anything, or that can be combined with other representations”, and that as such “is to be thought of as common to several” (B133n).

The possibility of recognition presuppose the discriminability of a content to be recognized – exactly that content to be represented as the accusative of the *I think*. In that consists the representability of the manifold *in* a representation *as* the manifold of *that* representation. However, neither the mere analytical unity of apperception, nor the diversity of representations as such, are sufficient for the discriminability of that content. Therefore, in order for the act of recognition to be possible, the subject must “synthetically bring about a determinate combination of the given manifold, so that the unity of this action is at the same time the unity of consciousness” (B138). That is the meaning of Kant’s statement to the effect that “the *analytical* unity of apperception is only possible under the presupposition of some *synthetic* one” (B134). Such a synthetic unity requires that the manifold representations in an intuition, at the same time that are related to a single *I think*, be referred to a common correlate as that *of* which they are representations in the first place – referred to their *object*.<sup>10</sup> Every thinking is, in regard to its form, a *synthetic and objective unity of the apperception of a given manifold*.<sup>11</sup>

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<sup>10</sup> Cf. B137.

<sup>11</sup> Cf. B139-40.

Kant then remarks, in the §19, that that objective unity has the form of a judgment, characterized as “the way to bring given cognitions to the *objective* unity of apperception” (B141). In judgment, says Kant, the copula “designates the relation of the representations to the original apperception and its *necessary unity*”, in which the “representations are combined in the object, i.e., regardless of any difference in the condition of the subject, and are not merely found together in perception” (B142). Now, if we have at our disposal the complete table of primitive functions of judgmental unity – i.e., of the logical forms of all possible judgments – the preceding results will enable us of constructing a complete table of the forms of objective unity of representational synthesis. Once these form are identified with the categories, we shall then have proved that “all sensible intuitions stand under the categories, as conditions under which alone their manifold can come together in one consciousness” (B143).

What we are presented with at the end of the first step of the argument is a *de dicto* conditional necessity: necessarily, if I think the unity of the manifold in an intuition, then I think an object of that intuition by means of a synthesis of its manifold according to the categories. In the face of that, the plan suggested by the remarks of §13 and contemplated by structure of the B-Deduction demands a further step in the argument. In order to prove that the categories are actually endowed with objective reality, one has to prove that the necessary conditions of the synthetic unity of the *thought* of an object of intuition are themselves conditions of that very objects of intuition, or appearances. In other words, the unity constituted by the categories must be presented not only as *thought unity*, but also as the *given unity* of an object of the senses, to be recognized in a judgment. We are faced here with a double requirement, a seemingly paradoxical one: categories are concepts of the synthetic unity of representations, but if they have objective reality it is because that unity is itself encountered in the sensibly given.

The introduction of the forms of our sensibility in the second step of the argument answers to that requirement. Taking into consideration the essential unity of space and time as forms of human intuition (themselves pure intuitions), the §26 strives to show that while the unity of space and time is as such given, the consciousness of that unity must satisfy the necessary conditions of the unity of consciousness established in the first step of the argument.<sup>12</sup> Therefore, the categorial determination carried out through the synthesis of the manifold of intuition, although not given itself *in* intuition, is given long *with* intuition.

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<sup>12</sup> See B160.

Consequently, appearances themselves, as objects of empirical intuition, conform to the categories.<sup>13</sup> But the intuitive *a priori* character of space and time cannot be established by means of the mere analysis of the conditions of thought; thus, the transition from the conclusion of the first step of the argument to the conclusion of the second step cannot be analytical. Because the objects given in intuition are themselves subject to the categories, the necessity of categorial determination is *de re* (and the categories are “objectively real”). However, because the form of their intuition is transcendently ideal, these objects are “mere appearances”.<sup>14</sup>

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<sup>13</sup> See B161.

<sup>14</sup> See B164.