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Kant's Metaphysical and Transcendental Deductions of the Categories: Tasks, Steps, and Claims of Identity

Abstract: Kant's Metaphysical Deduction of the Categories justifies their *apriority*, i.e. that their contents originate in the understanding itself, while the Transcendental Deduction justifies their *objectivity*, both in that they *purport* to represent objects of experience and that they do so *successfully*. The apriority of the categories, as explained in terms of acts of synthesis required for having sensible intuitions of objects, is justified by establishing their *generic identity* with logical functions of judgment, i.e. acts of judgment required for referring concepts to objects. The objective purport of the categories is justified by establishing that *sensible intuitions* fall under them. To finally justify that the categories represent successfully, i.e. that the *objects* of our intuitions fall under them, it is established that the *representations of space and time* do, namely by showing that the features addressed in their Metaphysical Expositions, too, are to be explained in terms of acts of synthesis.

My aim in this essay is to reconstruct the main tasks and steps of the Analytic of Concepts in Kant's *Critique of Pure Reason*, in particular his Metaphysical and Transcendental Deductions of the Categories (henceforth: MD and TD). I will first identify the tasks of MD and TD and give an overview of the arguments meant to achieve these tasks. I will then reconstruct what I take to be MD's three main steps (§1), the three main steps of TD's first part (henceforth: TD1) (§2), and, finally, the three main steps of TD's second part (henceforth: TD2) (§3).

The difference between the tasks of MD and TD is best understood in terms of the two essential features of the categories they are employed to explain. Kant wants to show that the categories are concepts that are both *a priori* and *objec-*

For their comments on earlier versions (of parts) of this essay I thank Henry Allison, Ralf Bader, Matt Boyle, Sebastian Bürkle, James Conant, Dina Emundts, Steve Engstrom, Eckart Förster, Stefanie Grüne, Johannes Haag, Rolf Horstmann, Toni Koch, Béatrice Longuenesse, Adem Mulamustafić, Moreno Rocchi, Tobias Rosefeldt, Houston Smit, Andy Stephenson, Jakub Techert, Bernhard Thöle, and Jess Tizzard. I would particularly like to thank Daniel James and Daniel Smyth for their thorough remarks on the penultimate version of this essay.

tively valid.¹ In first approximation, MD explains the categories' apriority, while TD accounts for their objectivity.

The *apriority* of the categories is their content's origin in the capacity of the understanding,² as contrasted with empirical concepts, whose content originates in sense experiences from which we derive them by abstraction.³ To establish the apriority of the categories, it is not enough to show that they are not empirical concepts. One further needs to trace their origin back to the understanding itself, namely to its fundamental representational abilities and acts. This is the task of MD.

Once the apriority of the categories is established, the problem of their objectivity arises. How can concepts refer to objects of experience if they do not derive from experiences of them? Empirical concepts refer to objects of experience in virtue of being derived from experiences of such objects by abstraction. But how can the categories, which arise in the understanding alone, be objectively valid of objects as they are given to us through the senses?⁴ Answering this question is the task of TD.

The *objectivity* of the categories is their purported and successful representation of objects of experience, as contrasted with empty concepts which either fail to represent objects at all, or which represent something that is not there or is not the way it is represented to be. There are two correlated senses of emptiness and objectivity. In contrast to *objective purport*, a concept is empty₁ just in case it does not represent objects at all, or fails to even have representational content. In contrast to *objective success*, a concept is empty₂ just in case it does represent objects, i.e. has representational content, but represents something that either does not exist or does not exist as represented. To establish the objectivity of the categories, it is not enough to show that they purport to be about objects. One also needs to show that they do so successfully, i.e. that possible objects of experience are as they are represented to be by the categories.

Accordingly, TD falls into two parts, which is reflected in the way Kant's B-Deduction (henceforth: B) is structured. This is the version of TD I will concentrate on since it makes this construction most perspicuous. At the same time, it will turn out that the A-Deduction (henceforth: A), especially in its presentation of synthesis, plays an indispensable role for understanding Kant's Analytic of Concepts. In TD1, namely in §§15–20 in B, Kant establishes the categories' objective purport, or that they are not empty₁, but in fact represent objects. In TD2,

¹ See A64 f./B89 f., A79 f./B105 f., A85/B117, A89 f./B122 f.

² See B5 f., A79 f./B105 f., A320/B377; *Prol* 4: 297; *Fortschritte* 20: 318.

³ See A76/B102, A85/B117; *Logik* 9: 93–95; *Fortschritte* 20: 273 f.

⁴ See A89 f./B122 f., A93/B125 f.

namely in §§21–27 in B, Kant establishes their objective success, or that they are not empty₂, but that possible objects of experience in fact are the way they are represented to be by the categories.

I thus suggest that Kant's argument in the Analytic of Concepts divides into three main parts (Table 1).

Table 1: Parts and tasks of Kant's argument in the Analytic of Concepts.

<i>Part of the argument</i>	MD	[TD]	TD1	TD2
<i>Task</i>	to establish the categories' apriority	[to establish the categories' objectivity]	to establish the categories' objective purport	to establish the categories' objective success

On my reading, each main part – i.e. MD, TD1, and TD2 – again subdivides into three steps, the third of which, in each case, takes the shape of an identity claim. In fact, these identity claims are supposed to allow Kant to ultimately reach his intended conclusions. To understand Kant's Analytic of Concepts, it is essential to grasp the progression of these three identity claims, and to appreciate that what Kant is claiming in them is an identity in type. I will try to supply some elaboration of these identity claims that Kant himself does not give, namely an analysis of what is common to their respective relata. It will turn out that the first identity claim, and with it MD as a whole, is of decisive importance for the success of TD in that it is indispensable for the conclusions of both TD1 and TD2.

Before going through these arguments step by step, here is a brief overview of both the steps and their place in Kant's text. The essay will follow the same structure.

- 1 The first step in the Analytic of Concepts: The Metaphysical Deduction (MD)
 - 1.1.1 The acts of judgment as the logical functions of thought (Guiding Thread, sections I and II⁵)
 - 1.1.2 The acts of synthesis as the original contents of the categories (Guiding Thread, section III⁶)
 - 1.1.3 The first identity claim: the same function gives unity both to judgments and intuitions so that [conclusion:] the categories originate a priori, i.e. in the understanding (Guiding Thread, section III: A79/B104f.)

5 Cf. A67/B92–A70/B95.

6 Cf. A76/B102–A81/B107.

- 2 The second step in the Analytic of Concepts: The first part of the Transcendental Deduction (TD1)
 - 2.1.1 Synthetic unity of apperception explains the unity of intuition (§§16,17 in B)
 - 2.1.2 Bringing representations to the unity of apperception consists in judging (§19 in B)
 - 2.1.3 The second identity claim: the categories are the same as the functions of judgment in application to intuition so that [conclusion:] intuitions as such fall under the categories (§20 in B)
- 3 The third step in the Analytic of Concepts: The second part of the Transcendental Deduction (TD2)
 - 3.1.1 The categories can refer to determinate objects only through empirical intuitions (§§22, 23 in B)
 - 3.1.2 The categories can refer to objects of empirical intuitions only through the form of empirical intuitions (§24 in B)
 - 3.1.3 The third identity claim: the unity of the forms of space and time is the same as that prescribed by the categories so that [conclusion:] all objects of our senses fall under the categories (§26 in B)

1 The First Step in the Analytic of Concepts: The Metaphysical Deduction⁷

In MD, Kant says retrospectively,

the origin of the categories a priori in general was established through their complete correspondence [völlige Zusammentreffung] with the general logical functions of thought (B159).⁸

According to this passage, MD's task is to justify the a priori origin of the categories by demonstrating their exact correspondence to the logical functions of thought.⁹ Since establishing such a correspondence requires an account both of the logical functions of thought and the categories, one can distinguish three main steps required to establish the intended result:

1. an account of the logical functions of thought (§1.1, below),

⁷ I made a first attempt at a reading of MD in Hoepfner (2011). For a comprehensive elaboration and detailed justification of my reading as I sketch it here, see Hoepfner (2021).

⁸ All translations of Kant's texts are mine, with help from Daniel Smyth.

⁹ Cf. Allison (2015: 166). For the task of MD, see Chapter 1 in Hoepfner (2021: 1–69).

2. an account of the categories (§1.2, below), and
3. a justification of the a priori origin of the categories by establishing their exact correspondence to the logical functions of thought (§1.3, below).

1.1 The Acts of Judgment as the Logical Functions of Thought¹⁰

Kant analyzes our capacity to think by investigating what representational abilities and acts are required to realize the end or task of the understanding, namely a “cognition through concepts” (A68/B93, A69/B94). It is only in *judgment*, Kant argues, that concepts are referred to objects since judgments are the only context in which other representations of objects can mediate their reference. It is for this reason that we can elaborate the notion of the capacity to think, i.e. to cognize through concepts, as that of a “capacity to judge” (A69/B94, A81/B106). The unity or *form of judgment* consists in the fact that judgments represent objects through concepts in a way that is true or false.¹¹ Judgments have propositional form. Kant's question in the first step of MD is what acts we need to exercise in judgments in order to refer concepts to objects. Here is the key passage:

The understanding can make no other use of these concepts than to judge through them. Since no representation but intuition refers to the object immediately, a concept is never immediately referred to an object, but always to some other representation of it (be it intuition or itself already a concept). Judgment therefore is the mediate representation of an object, i.e. the representation of a representation of it [the object; T. H.]. (A68/B93)¹²

It is due to the *generality* of concepts, the fact that they can apply to several objects, that their reference to objects is always only *mediate*, i.e. essentially mediated by other representations. Thus, concepts are general representations in that they stand for kinds or general features of objects, i.e. for what is common to individual objects.¹³ This means that if they are referred to objects, they are always referred to them mediated by the representation of a kind or general feature of those objects. They never pick out an individual object directly. Because their reference is in need of mediation by other representations, concepts are essentially *predicates*. They are “predicates of possible judgments” (A69/B94).

¹⁰ For the first step of MD, see Chapter 2 in Hoepfner (2021: 70 – 175).

¹¹ See B140 – 142, A293/B350; *Logik* 9: 65.

¹² A good statement of the basic idea of judgment according to this passage is given in Allison (2015: 167 f.).

¹³ See A320/B376 f.; *Logik* 9: 91; *Fortschritte* 20: 325.

Every judgment, as a cognition through concepts, thus needs to contain, first, a *mediated representation* of the object, i.e. a *predicate concept*. This in turn implies that, additionally, another representation is required, one that specifies or individuates the reference of the predicate, or a subject representation of which the concept is predicated. Every judgment, again insofar as it is a cognition through concepts, needs to contain, second, a *mediating representation* of the object, i.e. a *subject representation*. But these two roles in judgment must in turn be taken together with a third, namely with an act of combination, a role that must be fulfilled in any judgment in order for it to be true or false of objects at all. Otherwise, the predicate concept and the subject representation would merely stand next to each other like the component concepts of a complex concept (or, say, the members of a list). They would not form a unity that is propositional, i.e. a unity in which concepts are referred to objects and true or false of them.¹⁴ Every judgment, being a cognition through concepts, needs to contain, third, a *mediation*, the simplest form of which is the mediation of the predicate concept by the subject representation in predication, or, more generally, a *combination* of the representations in the judgment.¹⁵

Finally, if the mediating representation in a judgment – namely, the subject representation that mediates the reference of the predicate – is itself another concept, then it only specifies that reference, and its own reference will require mediation in turn. As a concept, it can again only mediately refer to objects, mediated by the representation of a kind or general feature of objects. Purely conceptual representation would thus lead to an infinite regress of mediated reference. The only way to stop this regress is to at some point refer concepts to representations that are not themselves concepts: representations that immediately refer to and thus individuate objects. The only such representations, for Kant, are sensible intuitions.¹⁶ Every judgment, as a cognition through concepts, therefore needs to contain, fourth, some reference to an *immediate representation* of the object, or a (possible) *sensible intuition* as its ultimate subject, in order to refer concepts to objects.¹⁷ Now, if what is analyzed here is a cognition of objects through concepts, and such reference is understood to be a mediate reference, then four features are severally necessary and jointly sufficient for the conceptual reference to objects, or able to complete it. These are a mediated representation, a mediating representation, a mediation, and, ultimately, an immediate representation of the object (Figure 1).

¹⁴ See *Briefe* 11: 347; *Log-Philippi* 14: 462, 386.

¹⁵ See A69/B94, B141f.; *Prol* 4: 304; *Refl* 5933 18: 392; *Log-Wien* 24: 928f.

¹⁶ See A19/B33, A68/B93, A155f./B194f.; *Met-L2*, 28: 546.

¹⁷ See A68f./B93f.; *Fortschritte* 20: 273; *Briefe* 11: 38.

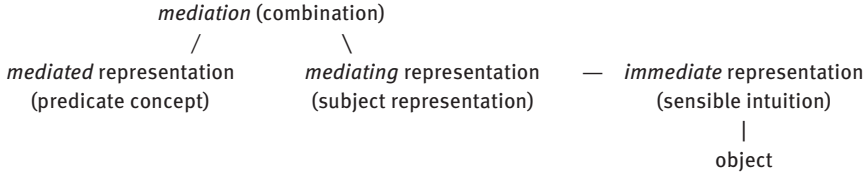


Figure 1: The four fundamental features of a cognition through concepts.

Accordingly, after having stated the essential mediacy of conceptual reference, Kant enumerates exactly those four features as characterizing any judgment that can refer concepts to objects, and as following from that mediacy:

[1] In every judgment there is a concept that holds of many [representations; T. H.], and among this many also comprehends a given representation, which is then referred immediately to the object. [...] [2] All judgments are therefore functions of unity among our representations, since instead of an immediate representation a higher one, which comprehends this and several [representations; T. H.] under itself, is used for the cognition of the object, and many possible cognitions are thereby drawn together into one. (A68f./B93f.)

To refer concepts to objects one needs

- i) *to represent sameness in kind or general features of objects* through a predicate concept or mediated representation ([1]: “a concept that holds of many”; [2]: “a higher [representation]”), e.g. the divisibility of bodies through the predicate concept in the judgment ‘Every body is divisible’;
- ii) *to specify these kinds or general features* through a subject representation or mediating representation (concept or intuition) the predicate concept is predicated of ([1]: “many [representations]”; [2]: “several [representations]”), e.g. as bodies through the subject concept in the judgment ‘Every body is divisible’;
- iii) *to combine the representations of the judgment* to form a unity that is true or false of objects or a mediation ([2]: “functions of unity among our representations”, “many possible cognitions are thereby drawn together into one”), e.g. as the combination of the concepts of body and divisibility in the judgment ‘Every body is divisible’, expressed through the copula;¹⁸
- iv) *to individuate the objects of judgments* by referring concepts to (at least possible) sensible intuitions of objects or immediate representations ([1]: “a given representation, which is then referred immediately to the object”;

¹⁸ See B141f.; *Log-Blomberg*, 24: 274.

[2]: “an immediate representation”), e.g. to sensible intuitions of bodies when judging ‘Every body is divisible’.¹⁹

In MD’s first step, Kant thus gives an analysis of a cognition through concepts in terms of the fundamental act types, the tokens of which we need to exercise in any judgment. Correspondingly, above four features of judgment form the four headings of the table of logical functions of judgment (Figure 2).²⁰

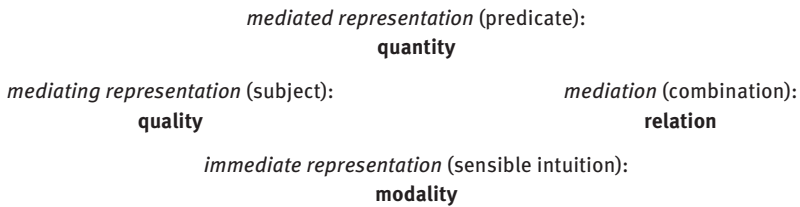


Figure 2: The four headings of the table of logical functions of judgment.

To elaborate:

- i) The *quantity* in a judgment consists in *quantifying a subject representation through a predicate concept*,²¹ where the predicate concept represents the object(s) referred to through the subject representation as the same in kind or as sharing some common feature. The elementary variants – quantifying in a universal, particular, or singular way – can be expressed as ‘All S are P’, ‘Some S are P’, and ‘One/This S is P’.
- ii) The *quality* in a judgment consists in *specifying a predicate concept through a subject representation*,²² where the subject representation represents specific kinds or features of objects. The elementary variants – specifying in a positive, negative, or infinite (limitative) way – can be expressed as ‘S is P’, ‘S is not P’, and ‘S is non-P’.

¹⁹ Another detailed reading that attempts to explain the four headings of Kant’s table of logical functions from Kant’s text in the first section of the Guiding Thread is proposed in Wolff (1995). Some of the more important reasons for thinking that Wolff’s reading is unable to do justice to the details of Kant’s text are given in Thöle (2001). A detailed criticism of Wolff’s reading that elaborates on and adds to Thöle’s criticism can be found in Hoepfner (2021: 165–175).

²⁰ See A70/B95; *Prol* 4: 302f., 330; *Log-Pölitz* 24/2: 577; *Log-Wien* 24/2: 929.

²¹ See A71/B96; *Logik* 9: 102.

²² See A71f./B97; *Logik* 9: 103f.

- iii) The *relation* in a judgment consists in *combining the representations in the judgment*,²³ so that the representations in the judgment form a unity that represents objects through concepts and is true or false of them. The elementary variants – combination as predication, as combination of two, or of several predications – can be expressed as ‘S is P’, ‘If S is P then T is Q’, and ‘Either S is P or S is Q...’.
- iv) The *modality* in a judgment expresses the *relation of judgment to object*, which is ultimately dependent on sensible intuition as the ultimate subject of a judgment, and gives it a modal status. The elementary variants – the possibility (in conceptual thought), actuality (in sensible intuition), or necessity of a judgment’s truth – can be expressed as ‘It is possible that S is P’, ‘S is actually P’, and ‘S is necessarily P’.²⁴

The table of logical functions thus turns out to be a depiction of the complex act of judgment itself. This completes MD’s first step. Kant’s next step is to give an account of the categories.

1.2 The Acts of Synthesis as the Original Contents of the Categories²⁵

Categories are concepts of objects in general in the sense that they represent the most general characteristics of objects of sensible intuition;²⁶ they are “concepts of synthesis” (A80/B106, A723/B751) with a “transcendental content” (A79/B105);²⁷ and they originate a priori, i.e. in the understanding.²⁸ The main task of MD’s second step is to explain the contents in virtue of which the categories represent the most general characteristics of objects of sensible intuition.

Concepts have a general form in that they represent what is common to objects, namely kinds or general features of objects.²⁹ It is their *content* that differentiates concepts from one another. While the form of a representation is the way it represents its objects, its content is “its relation to the object” (A55/B79),³⁰ i.e.

²³ See A73/B98, B141f.; *Logik* 9: 104; *Log-Wien* 24/2: 928.

²⁴ See A74f./B99f.; *KU* 5: 401–404; *Refl* 5718 18: 334; *Met-L2* 28: 554.

²⁵ For the second step of MD, see Chapter 3 in Hoepfner (2021: 176–335).

²⁶ See A93/B125f., B128, B154, A 349; *KpV* 5: 65; *Briefe* 11: 314, 13: 468, 472; *Fortschritte* 20: 272.

²⁷ Cf. A53/B77.

²⁸ See B159; *Fortschritte* 20: 318; *Prol* 4: 297; *Entdeckung* 8: 215, 217n.

²⁹ See A320/B376f.; *Logik* 9: 91.

³⁰ Cf. A58/B83, A62f./B87.

the representational relation in which it stands to its objects. Concepts as general representations are explained by the act of concept formation that “first of all transforms them [representations] into concepts” (A76/B102).³¹ It is an act of “ordering various representations under a common one” (A68/B93), i.e. of bringing “various representations *under* a concept” (A78/B104), or *analysis*.

While concepts are formed by analyzing representations of objects with respect to what their contents have in common, “no concepts can arise analytically *as to content*.” (A77/B103) The content of concepts is purely derivative, ultimately depending on analyzable contents in sensible intuition.³² *Conceptual contents* are determined by the contents of the representations from which they are formed, and derive from the domain of their formation. This is why concepts represent the same objects as the representations from which they are formed, but do so in a general way; they have the same contents, but with a general form.³³

Since the mediate reference of concepts to objects ultimately requires sensible intuitions, i.e. immediate representations of objects, Kant now needs to explain how sensible intuitions represent individual objects. It is the act of synthesis that brings about the “*unity of intuition* through which an object is given” (B144n), i.e. “that unity [...] which must be encountered in a manifold of cognition insofar as it stands in relation to an object.” (A109) The *unity of intuitions* is that through which they represent individual objects of the senses, or have their singular content.

Correspondingly, Kant introduces his account of a *synthesis of intuition* as an attempt to explain representational contents, stating that “the synthesis alone is that which properly collects the elements for cognitions and unifies them to a certain content” (A77 f./B103). An account of synthesis is thus motivated by a need to explain how our mind can “relate to objects” (A97). More precisely, since the unity of intuition as explained through synthesis is a possible content of concepts by forming a possible domain of concept formation,³⁴ Kant’s account of synthesis is ultimately an account of conceptual content. This is why synthesis culminates in the completing act of recognition “in the concept” (A97, A103), which literally accounts for contents as contained *in* concepts, constituting their representational relation to objects.³⁵

31 The complex act of concept formation consists of the partial acts of comparison, reflection and abstraction. See *Logik* 8: 93–95; *RefI* 2849–81 16: 546–558.

32 See B133 f.n, B137n; *Log-Philippi* 24/1: 452; *Met-K3E* 29: 949.

33 See *Fortschritte* 20: 273 f. Cf. Smit (2000: 256, 259).

34 See A77 f./B103, A 103 f., A310/B367.

35 Cf. A105, A109, B137, A250.

What acts of synthesis do we need to exercise to constitute representational content? Kant's account of synthesis takes the shape of an enumeration of representational abilities and acts that are severally necessary and jointly sufficient for constituting the unity of intuition and thereby representational content. We can find an elaboration in A, which Kant explicitly references as such an elaboration in MD.³⁶ The act types of synthesis are apprehension, reproduction, and recognition.³⁷ The token exercises of these act types combine a manifold of sense impressions given in receptivity,³⁸ i.e. given independently from acts of representing through the understanding.³⁹ According to Kant, representing individual objects in sensible intuition requires

- i) *apprehending a manifold* of sense impressions “as such” (A99) by “running through the manifold and then taking it together” (A99), i.e. to apprehend it as the representation of a manifold of sensible qualities, which is responsible for representing the perceivable qualitative features of an object of sensible intuition, e.g. the color, weight etc. of a tree;
- ii) *reproducing homogeneous parts* of an intuition (for us humans: spatial and/or temporal parts), i.e. “to grasp one of these representations [of parts; T. H.] after the other” (A102), and “reproduce them while going on to the following” (A102) so that “a whole representation” (A102) can originate, which is responsible for representing the formally homogeneous whole of an object of sensible intuition, e.g. the extension and shape of a tree;
- iii) *recognizing the unity* of above acts of apprehension and reproduction as partial acts of the very same act of synthesis, i.e. to have “consciousness of that unity of synthesis” (A103)⁴⁰ and thus recognize that “what we think is the very same [...] in the series of representations” (A103), which is responsible for representing the unity of individual objects and their features as they are represented through these acts, say, the unity of a substance and its features, e.g. the unity of a tree and its qualitative and formal characteristics; and, finally,
- iv) *relating to the object* on the basis of a manifold of sense impressions, i.e. presentations of simple sensible qualities such as color, weight, etc. brought about by objects of sensibility⁴¹ and given in receptivity as the passive ability

³⁶ See A78/B103. For Kant's elaboration of his account of synthesis in A, see Hoepfner (2021: 211–245).

³⁷ See A97–110.

³⁸ See A19/B33, A50/B74.

³⁹ See B129, B145.

⁴⁰ Cf. A108, B138.

⁴¹ See A20 f./B35, B44; *Fortschritte* 20: 268f.; *Met-Schön* 28: 482f.

to have sense impressions within certain forms⁴² (for us humans: time and/or space), which is responsible for the fact that sensible “intuition contains manifoldness [of sense impressions; T. H.]” (A97).⁴³

By performing token exercises of these act types, subjects enjoy singular empirical intuitions of individual objects. With his account of synthesis, Kant is analyzing intuitions of objects in terms of acts of synthesizing sense impressions. In the last analysis, intuitions of objects *just are* acts of synthesizing sense impressions. Thus, the acts of synthesis explain intuitions in the sense that empirical intuitions are *nothing but* the acts of synthesis operating on and modified by particular manifolds of sense impressions. For example, the intuition of a tree is nothing but the complete act of synthesis operating on and modified by a particular manifold of sense impressions brought about by a tree.

But how can this account provide the contents of the categories? Since the categories share the form of generality with all concepts, their form will have to be explained by the act of concept formation, too.⁴⁴ But while empirical intuitions can provide the basis for the formation of empirical concepts by exhibiting perceivable features of objects, they cannot account for the non-empirical contents of the categories. These transcendental contents represent features of objects that do not correspond to perceivable traits, namely their most general characteristics such as substantiality, unity, etc.⁴⁵ The categories can then only be formed by reflection *on the understanding itself*, rather than by reflecting on sensible intuitions, and as the capacity of the understanding consists of abilities and acts to represent objects, what is reflected upon in the formation of the categories will have to be such abilities and acts of representation.⁴⁶ More specifically, since the categories are concepts of objects in general, the abilities and acts to be reflected on will be those through which we fundamentally represent objects, namely the abilities and acts of synthesis.

Kant accordingly describes the categories as “concepts of synthesis” (A80/B106), or as “concepts of the synthesis of possible sensations” (A723/B751). This can now be understood as claiming that the acts of forming the categories are applied *to the acts of synthesis itself*, which in turn means that the act types of synthesis determine the contents of the categories. The contents of the catego-

⁴² See A20/B34; *Refl* 4673 17: 639.

⁴³ Cf. A99f.

⁴⁴ See *Logik* 9: 93f.; *Refl* 2851 16: 546; *Refl* 2855f. 16: 547f.

⁴⁵ See A137f./B176f.

⁴⁶ See *Refl* 2857 16: 548; *Refl* 3930 17: 352; *Log-Philippi* 24/1: 452. Cf. A 51/B 75; *Prol* 4: 282.

ries derive from the acts of synthesis.⁴⁷ Synthesis or synthetic unity itself, when expressed or “*represented generally*, gives the pure concept of the understanding.” (A78/B104)⁴⁸ This means that the acts of synthesis determine the contents of the categories by being transformed, through concept formation, into contents representing in a general way. It is this transformation of acts of synthesis into representations with a general form that accounts for the categories in the sense of general concepts of objects.

Since the categories are formed through reflection on nothing but the understanding itself, the acts of synthesis will have to be considered as generic types, or “*pure synthesis*” (A78/B104). The content of the categories thus derives from the fundamental, generic structure that all acts of synthesis of an intuition have in common, independent of what is given in sensibility and in what sensible form. This structure consists in the generic act types of apprehension, reproduction, and recognition, which relate to the object on the basis of a manifold of sense impressions, and together constitute every possible sensible intuition of objects. Correspondingly, above four features of synthesis form the four headings of the table of categories (Figure 3).⁴⁹

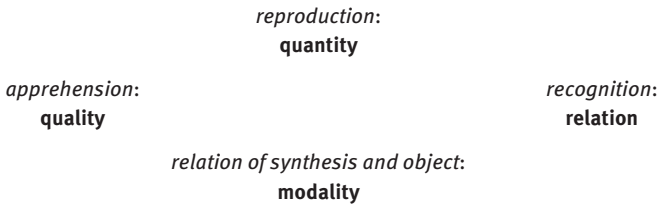


Figure 3: The four headings of the table of categories.

To elaborate:

- i) The categories of *quantity* – of unity, plurality, and totality –, which concern “objects of intuition” (B110),⁵⁰ originally consist in *reproducing a homogeneous part of an intuition, a plurality, and a totality of such parts* (for us humans: spatial and/or temporal parts), representing the homogeneous parts and wholes of objects of intuition.⁵¹

⁴⁷ See A719/B747, A722/B750; *Briefe* 13: 468, 472; *Refl* 5643 18: 283; *Fortschritte* 20: 271.

⁴⁸ Cf. A79/B105.

⁴⁹ Cf. A80/B106; *Prolog* 4: 302f.

⁵⁰ Cf. A160/B199.

⁵¹ See B162, B203, A242/B300, A 720/B 748; *Refl* 6338a 18: 661.

- ii) The categories of *quality* – of reality, negation, and limitation –, which also concern “objects of intuition” (B110), originally consist in *apprehending the form of intuition as filled by sense impressions, empty, and partly filled* (for us humans: the form of time and/or space), representing the reality and lack of reality of perceivable features of objects of intuition.⁵²
- iii) The categories of *relation* – of substance/accident, cause/effect, and community –, which concern “the existence of these objects [of intuition; T. H.] [...] in relation to one another” (B110),⁵³ originally consist in *recognizing the unity of acts of synthesizing (one, two, or several) intuitions*, representing the objective unity of (one, two, or several) objects of intuition and their features.⁵⁴
- iv) The categories of *modality* – of possibility, actuality, and necessity –, which concern “the existence of these objects [of intuition; T. H.] [...] in relation [...] to the understanding” (B110),⁵⁵ express the *relation of synthesis to object*: the conformity of the object with the synthetic (categorical) and sensible (for us humans: spatial and/or temporal) form of cognition, its connection also to the matter of cognition (sense impressions), or its necessity.⁵⁶

The table of categories thus turns out to be a depiction of the complex act of synthesis itself. With this account of the categories, MD’s second step is complete. The third and final step of MD will be to justify their a priori origin.

1.3 The First Identity Claim and the Conclusion of MD⁵⁷

An exact correspondence of categories to logical functions of judgment is required to show that the former originate a priori, i.e. in the understanding. Kant’s first identity claim is supposed to provide the ground for such a correspondence:

[a] The same function that gives unity to the various representations *in a judgment* also gives unity to the mere synthesis of various representations *in an intuition*, which, expressed generally, is called the pure concept of the understanding. [b] So the same understanding, namely through the very same acts, through which in concepts, by means of the analytic unity, it brought about the logical form of a judgment, also brings, by means of the

⁵² See A143/B182, A167 f./B209 f., A175 f./B217, A242/B300; *Refl* 6338a 18: 663.

⁵³ Cf. *Refl* 5697 18: 329; *Met-K3E* 29: 1002.

⁵⁴ See B162 f., B218 f.; *Refl* 5854 18: 369; *Refl* 6338a 18: 662.

⁵⁵ Cf. A219/B266; *Refl* 5697 18: 329.

⁵⁶ See A218 f./B265 f., A233 f./B286 f.; *Refl* 5228 18: 125 f.; *KU* 5: 401–404.

⁵⁷ For the third step of MD, see Chapter 4 in Hoepfner (2021: 336–373).

synthetic unity of the manifold in the intuition in general, a transcendental content into its representations, which is why they are called pure concepts of the understanding, that relate to objects a priori [...]. (A79/B104 f.)

In this passage, Kant claims that ‘the same function’ ([a]) or ‘the very same acts of the same understanding’ ([b]) ‘give unity to judgment and to intuition’ ([a]), i.e. bring about, on the one hand, ‘the logical form of a judgment by means of the analytic unity’, and, on the other, ‘the transcendental content of the categories by means of the synthetic unity’ ([b]). He reasons that this is why the categories are concepts a priori ([b]).

In what sense can the same function ground both the unity of judgment and the unity of intuition? Judgment is an act of analysis through which “various representations are brought *under* a concept” (A78/B104).⁵⁸ It consists in the subordination of various representations *under a concept* based on what is common to them. It represents *one in many*,⁵⁹ i.e. one kind or general feature as shared by various objects. By contrast, synthesis is an “act of putting various representations together with each other and comprehending their manifoldness in one cognition.” (A77/B103) It consists in the combination of various sense impressions *into an intuition* based on how they belong together in the representation of an individual object.⁶⁰ It represents *many in one*,⁶¹ i.e. many individual features and parts as contained in one object (or fact). Since judgments subordinate representations under concepts, while acts of synthesis unite sense impressions within intuitions, judging and synthesis are specifically different from one another.⁶²

Against this background, Kant’s identity claim can only be read as saying that acts of judgment and synthesis are *generically the same* in the sense of being *different species of the same genus*. The sameness claimed in A79/B104 f.

58 Cf. A68/B93, A79/B104 f.; *Refl* 4273 17: 491.

59 See B136n; *Refl* 6248 18: 528; *OP* 22: 342.

60 See A79/B104 f., A103 f., B137 f.

61 See B136n; *Refl* 6248 18: 528; *OP* 22: 342.

62 This undercuts the dominant tendency in Kant scholarship to give a reductive reading of A79/B104 f., according to which Kant claims there, in one way or another, that synthesis is a kind of judgment, or, more generally, of conceptual determination, as do e.g. Guyer (2001: 319 f.), Allison (2004: 153 f., 2015: 177 f.), Haag (2007: 199), and McDowell (2009: 30 f., 94 f., 148). A sophisticated version of such a view, according to which the passage claims a primacy of judgment in that judgment somehow guides synthesis, has been developed in Longuenesse (1998: 199–204). I critically and in detail engage her view on the passage in Hoepfner (2021: 365–373).

is an *identity in type*.⁶³ Kant thereby introduces, as he himself explains when looking back at MD – effectively confirming the generic reading just proposed –, a “higher notion” (A299/B356) of the understanding, i.e., a generic notion of an understanding with both a use in judgment and in synthesis.⁶⁴

To establish their generic identity in turn means to show that judgment and synthesis share a common structure, which, if successful, is supposed to justify the claim that such acts of synthesis belong to the same understanding that also judges. Kant’s idea at this point seems to be that if judgment and synthesis display a common, generic structure, they are thereby shown to be specifically different applications of the same capacity. For Kant, the “complete correspondence” (B159) of judgment and synthesis, i.e. the categories, can only be explained if they co-originate in the same capacity.

One can indeed establish such a common structure of judgment and synthesis. To begin with, both are complex, tripartite acts that operate on various elements, both result in a representational unity, and both depend on sensibility. What is more, it is possible to establish a correspondence of each of their respective features. The fundamental features of judgment and synthesis thereby turn out to be specific applications of the generic act of representing specificity (*quality*), homogeneity (*quantity*), and objective unity (*relation*), in both cases depending on sensibility in their relation to objects (*modality*):⁶⁵

- i) *Representing specificity*: The subject representation of a judgment represents specific kinds or general features of objects, while the synthesis of apprehension represents a specific variety of sensible qualities.
- ii) *Representing homogeneity*: The predicate concept of a judgment represents objects as being of the same kind or as having general features in common, while the synthesis of reproduction represents parts and wholes as formally homogeneous.
- iii) *Representing objective unity*: The combination in a judgment represents a unity of kinds and general features of objects, while the synthesis of recognition represents a unity of individual objects and their qualitative and formal features.
- iv) *Dependence on sensibility in the relation to objects*: Judgment requires a reference to sensible intuitions, while synthesis requires a manifold of sense impressions.

⁶³ For the identity of a type cf. A651/B679, A654/B682.

⁶⁴ A connection between A79/B104f. and A299/B355f., which I take to be a key to a proper understanding of MD, has already been noted in Reich (2001: 12f.). For higher notions cf. *Logik* 9: 96f.; *Log-Pölitz* 24/2: 568f.

⁶⁵ Cf. B130f.

Judgment and synthesis are thus – right down to their partial acts – identical in type. For they are different species of the same genus of representational act, which is a possibility that can only be explained if they belong to the same capacity. Since they exactly correspond to generically identical functions of judgment, it becomes apparent that the act types of synthesis – and, consequently, the categories – originate a priori, i.e. in the same understanding that also judges. Kant thereby establishes the origin of the categories in the understanding by tracing it back to its fundamental representational abilities and acts. With this in place, the task of MD is accomplished.

In sum, Kant's claim of generic identity in A79/B104 f., and with it the whole of MD, can be presented as in Figure 4.

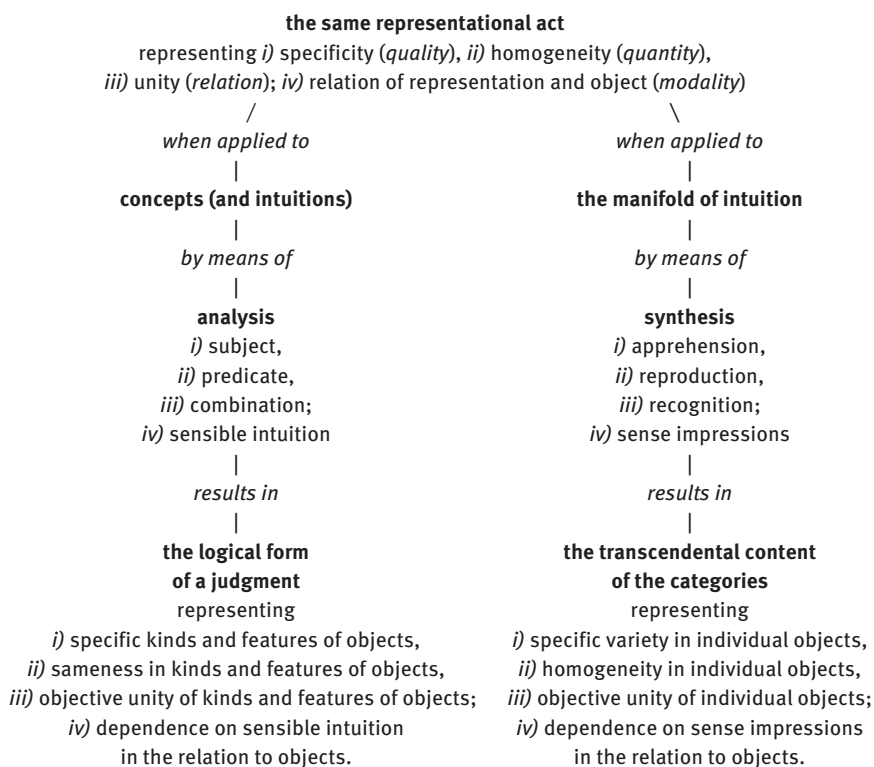


Figure 4: Kant's claim of generic identity at A79/B104 f. and MD as a whole.

2 The Second Step in the Analytic of Concepts: The First Part of the Transcendental Deduction

TD's task is to explain "how concepts a priori can refer to objects" (A85/B117). How can concepts that arise in the understanding nevertheless be objectively valid of objects given through the senses?⁶⁶ Objective validity means, first of all, the *objective purport* of the categories, namely their representational content in virtue of which they refer to objects. To show this means to rule out the possibility that they are empty₁, i.e. "thoughts without content" (A51/B75). Kant establishes this in TD1, where he proves that *sensible intuitions* as such fall under the categories.⁶⁷ In addition, TD concerns the *objective success* of the categories, namely that possible objects of experience are as we represent them to be through the categories. Thus, according to Kant, TD's question is

whether such a concept [a category, e.g. that of causation; T. H.] is not perhaps empty and finds no object anywhere among the appearances. (A90/B122)

What we need to rule out here is the possibility that the categories are empty₂, i.e. that what they represent does not exist at all, or does not exist as represented. This is established only in TD2, where Kant demonstrates that all *objects of our senses* fall under the categories.⁶⁸

But first, one will have to establish that the categories so much as purport to be about objects. Following the summary of TD1's argument that Kant himself gives in §20, I will now treat how Kant

1. explains the unity of intuition through the synthetic unity of apperception (in §17) (§2.1, below),
2. explains bringing representations to the unity of apperception in terms of judging (in §19) (§2.2, below), and
3. justifies that all sensible intuitions as such stand under the categories by establishing that the logical functions of judgment, in application to intuition, are the same as the categories (in §20) (§2.3, below).

⁶⁶ See Allison (2015: 187, 191, 200).

⁶⁷ See B143.

⁶⁸ Cf. B144 f., B160 f.

2.1 Synthetic Unity of Apperception Explains the Unity of Intuition

According to §20, the essential conclusion from §17, as prepared by §16, is the following:

The manifold given in a sensible intuition necessarily belongs under the original synthetic unity of apperception, since through it alone the *unity* of the intuition is possible (§17). (B143)

Acts of synthesis were introduced to explain the unity of intuition, i.e. to explain that intuitions represent individual objects of the senses, which in turn is presupposed for analysis, i.e. the formation of concepts and their use in judgments (§1.2, above). Kant now formulates these claims in terms of what he calls the “unity of apperception” or unity of *self-consciousness*, and addresses what it means for representations of objects to be employed by and held together in the consciousness of a thinking subject. He thus begins to describe acts of analysis and synthesis in terms of the analytic and synthetic unity of apperception:

[I]t is only because I can combine a manifold of given representations *in one consciousness* [=the synthetic unity of apperception; T. H.] that it is possible that I represent the *identity of consciousness in these representations* themselves to myself [=the analytic unity of apperception; T. H.] (B133).

The *analytic unity of apperception* expressed through ‘I think...’ is the necessary identity of self-consciousness through all of my acts and states of conceptually representing objects.⁶⁹ The *synthetic unity of apperception* is the unity of consciousness characterizing any sensible intuition that is a possible content of conceptual thought, i.e. any intuitional content that can be accompanied by the ‘I think...’.⁷⁰ Thus, mere sense impressions cannot be contents of self-conscious thought. Moreover, only what is characterized by the synthetic unity of apperception, i.e. what is united and brought to self-consciousness by acts of synthesis, exhibits unity of intuition. Again, mere sense impressions lack such unity.

Say I reproduce homogeneous parts of the same whole (for us humans: spatial and/or temporal parts) and thereby represent a formal structure that apprehended sensible qualities can be ordered in (=the act of reproduction in A). This is only possible if I also consciously represent the objects these qualitative and

⁶⁹ See B131f.

⁷⁰ See B133f.

formal features belong to as numerically the same throughout these partial acts of representing. “Without consciousness that what we think is the very same [...] in the series of representations” (A103), each of these acts would constitute a new and separate representing. Only if I consciously refer the qualitative and formal features represented in apprehension and reproduction to one and the same objective unity, do my acts of synthesis hold together as acts of representing objectively (= the act of recognition in A) (§1.2, above). Being conscious of the numerical identity of what is represented throughout synthesis allows me to represent, on the one hand, qualitative and formal features as features of unitary objects that are distinct from us and our acts of synthesis⁷¹ (=the synthetic unity of apperception in B), and, on the other, the identity of the act and subject of synthesis (=the analytic unity of apperception in B). Kant thereby essentially links the consciousness of objects to the consciousness of oneself as a thinker.⁷²

2.2 Bringing Representations to the Unity of Apperception Consists in Judging

According to §20, the essential conclusion from §19 is twofold:

[i] That act of the understanding, however, through which the manifold of given representations (whether they be intuitions or concepts) is brought under an apperception in general, is the logical function of judgments (§19). [ii] So anything manifold, insofar as it is given in one empirical intuition, is *determined* in regard to one of the logical functions of judgment, through which it is brought to a consciousness in general. (B143)

Let me begin with [i]. In §19 Kant describes judgment as “the way to bring given cognitions to the *objective* unity of apperception.” (B141) The objective unity of apperception is to be contrasted with the merely subjective unity of association, in that the former, unlike the latter, represents a combination of features “in the object, i.e. regardless of any difference in the state of the subject” (B142). Such representation in judgment is essentially self-conscious in that it differentiates what it represents to be the case objectively from what merely goes on in the judging subject.

It is only in *judgment* that the understanding realizes its end of a “cognition through concepts” (A68/B93, A69/B94) (§1.1, above). Judgment is the minimal unit of consciousness that refers concepts to objects in a way that is true or

⁷¹ Cf. A103–105.

⁷² On the synthesis of recognition, see Hoepfner (2021: 231–245).

false. It is the proper objective unity of apperception in that it is the only context in which concepts and intuitions can interact in cognition, so that concepts can be predicated of objects of sensible intuition. Only here the analytic unity of conceptual thought and the synthetic unity of intuition are brought together in the self-conscious thought of an object that is distinct and independent from us and our thinking it.

This brings me to [ii]. Judgments depend on the possibility of sensible intuitions for their reference to objects (§1.1, above). What is more, according to §19, the *unity of judgment* has to correspond to the *unity of intuition*: the holding together of representations in a judgment in virtue of which it is true or false of objects has to correspond to the holding together of sense impressions and homogeneous parts in an intuition in virtue of which it represents an individual object with its qualitative and formal features. The representations in a judgment, according to Kant,

belong to one another *in virtue of the necessary unity* of apperception in the synthesis of intuitions, i.e. according to principles of the objective determination of any representations insofar as cognition can come from it (B142).

The principles of the unity of intuition that the unity of judgment has to correspond to are the fundamental *acts of synthesis*, i.e. the original contents of the categories. Only intuitions relate us to something that is distinct from us and our acts of representing it since only intuitions incorporate sense impressions as what is given independently from thought. By constituting unity of intuition, the acts of synthesis originally constitute our representational relation to objects as distinct from ourselves and our acts of representing them (§1.2, above). Thus, if judgments are to refer concepts to objects, their propositional unity will have to partake in the unity of intuition. Judgments only propositionally refer to objects if their unity, i.e. the way their constituent representations hold together, corresponds to the synthetic unity of intuition. The unity of intuition ultimately explains any possible representational relation to objects whatsoever.⁷³

As Kant puts it in §20, in being taken up into consciousness, empirical intuitions are determined in regard to logical functions of judgment. This refers back to Kant's "*explanation of the categories*" in §14, according to which the categories are "concepts of an object in general by which its intuition is regarded as *determined* in regard to one of the *logical functions* of judgments" (B128). In virtue of being synthesized by acts of synthesis, any sensible intuition contains the orig-

⁷³ I discuss the way that the unity of judgment relates to the unity of intuition in Hoepfner (2021: 285–288).

inal contents of the categories. By reflecting on these acts, we form the categories as general concepts representing the most general characteristics of objects of sensible intuition (§1.2, above). According to B128, the *applicability of specific categories* to sensible intuitions determines the *specific exercises of judgment* through which to think the objects of these intuitions.⁷⁴ If something is only thinkable through a specific categorial characteristic, i.e. if it requires us to bring intuitions of it under a particular category, then we are committed to judge of it using the corresponding logical function, if the judgment is to be objectively valid. Whatever is categorizable only as a reality must be judged through an affirmative judgment, whatever is categorizable only as a substance must be judged through the subject concept of a categorial judgment, whatever is categorizable only as a cause must be judged through the antecedent of a hypothetical judgment, and so on.

Judgments exhibit propositional unity only insofar as the way we combine representations in them corresponds to the synthetic unity of intuitions. For example, subject and predicate in a categorial judgment need to be combined according to the way the acts of intuitively representing a bearer and its properties go together in the synthesis of intuition, i.e. according to how they belong together in the representation of an individual object. If, e.g., the intuitive representations of divisibility and body only go together in synthesis such that the body is represented as the bearer of divisibility, and not the other way around, then the concept of body will have to play the role of the logical subject in the corresponding judgment, while the concept of divisibility will have to be its logical predicate.⁷⁵ Only then does the unity of judgment correspond to the unity of objects, which is nothing other than the unity of what is represented by the synthetic unity of intuition.⁷⁶

2.3 The Second Identity Claim and the Conclusion of TD1

In the heading of §20, Kant puts the conclusion of TD1 as follows:

All sensible intuitions stand under the categories as conditions under which alone their manifold can come together in one consciousness (B143).

⁷⁴ Cf. B143, A245f.; *RefI XLII* (A80) 23: 25; *Prol* 4: 300–304.

⁷⁵ See B128; *RefI XLII* (A80) 23: 25.

⁷⁶ See A109, B137. I discuss the way exercises of specific logical functions of judgment relate to the applicability of specific categories in Hoepfner (2021: 292–322).

This follows from his second identity claim:

But now the *categories* are nothing other than these very functions for judging, insofar as the manifold of a given intuition is determined in regard to them (§10) (B143).

The categories are nothing other than the functions of judging *insofar as* the manifold of a given intuition is determined in regard to them. This is a consequence of Kant's first identity claim. The logical form of judgment and the content of the categories rest on the same generic function of the same understanding. They are specific results from specific applications of its generic act, expressed in the two basic exercises of this capacity: in judgment when applied to concepts (and intuitions) and in the synthesis of intuition when applied to sense impressions (§1.3, above). It follows that the categories, when considered with respect to their original contents, i.e. the acts of synthesis (§1.2, above), are *generically the same* as the logical functions of judgment, i.e. generically the same acts, just as applied to a manifold of sensible intuition. What is more, one of these two basic exercises of the understanding, i.e. the synthesis of intuition, conditions the other, namely judgment.

This allows me to give a reconstruction of the argument in §20 and TD1 as a whole. Following the structure of §20, it can be divided into three premises (P₁ to P₃) and one conclusion (C):

- P₁) Unity of intuition as representing individual objects of the senses, and as accompaniable by the 'I think...', is only possible through the synthetic unity of apperception, or acts of synthesis (§17: the first step of TD1).

- P₂) Representations of objects (whether conceptual or intuitive) are in general brought to self-consciousness, expressible by the 'I think...', through judging. In particular, the manifold in unitary empirical intuitions is determined in regard to one of the logical functions of judgment through which it is brought to self-consciousness (§19: the second step of TD1).

- P₃) Logical functions of judgment are generically the same as and exactly correspond to acts of synthesis, i.e. to the original contents of the categories, the latter of which are conditions on the exercise of the former (§20: the third step of TD1, based on the third step of MD).

- C) Since functions of judgment can only be exercised with respect to intuitions under the condition of the exercise of the corresponding synthetic acts, i.e. the corresponding categorial contents in intuition,

which is tantamount to an intuition's standing under the corresponding general category, all unitary intuitions, in virtue of being able to be brought to self-consciousness, stand under the categories (§20: the conclusion of TD1).

To understand why §20 concludes only the first part of TD, one has to recognize that it is only a claim about *sensible intuitions* and not yet a claim about their *objects*.⁷⁷ It claims that sensible intuitions *as representations of objects* fall under the categories, since only then they can be brought to self-consciousness, or accompanied by the 'I think...'. This demonstrates the *objective purport* of the categories by proving that intuitions only so much as purport to represent objects when they fall under the categories. By enabling intuitions to be about objects in the first place, the categories are themselves shown to be about objects, namely through the sensible intuitions they help make possible. This establishes that they are not empty₁, i.e. "thoughts without content" (A51/B75). The categories are such that intuitions necessarily fall under them, which is why they represent objects through unitary sensible intuitions.

But this does not yet secure the *objective success* of the categories. Though they do purport to represent objects, they might still turn out to be empty₂, since they might have "no object anywhere among the appearances" (A90/B122). Demonstrating that the categories purport to be about objects by showing them to be conditions on the *representational contents* of sensible intuitions is not the same as showing them to be conditions on *objects given through the senses*, or demonstrating their objective success with respect to such objects. Kant still needs to make the move from intuitions to their objects. Establishing that the categories are objectively valid of "all objects of our senses" (B145) is the task of TD2 and the final piece of the argument I am reconstructing.

⁷⁷ I first proposed this reading of the two parts of the B-Deduction in Haag and Hoepfner (2019: 81 ff.). The dominant tendency in Kant scholarship, beginning with Henrich (1969: 645 ff.), is to overlook the movement from intuitions in §20 to their objects in §26 and to conceive of the transition from TD1 to TD2 as one from one kind or status of representation to another. Recent examples of this tendency are Allison (2015: 328 f., 378 ff., 423 ff.) and Conant (2016: 86, 106 ff.). For a criticism of Conant's view on the transition from TD1 to TD2, see my remarks in Haag and Hoepfner (2019: 83 ff.).

3 The Third Step in the Analytic of Concepts: The Second Part of the Transcendental Deduction

The goal of TD is to show that, put negatively, the categories are not empty₂ such that they have “no object anywhere among the appearances” (A90/B122). We achieve this goal by showing, put positively, that the categories are objectively valid of “all objects of our senses” (B145). For a concept to have “objective reality” means for it “to refer to an object and have meaning and sense in that object” (A155/B194),⁷⁸ which requires that “the object can be given in some way” (A155/B194). According to §21, only “the beginning of a *deduction* of the pure concepts of the understanding is made” (B144) in TD1, since it still abstracts exactly “from the way in which the manifold for an empirical intuition is given” (B144). Kant intends to show with §26

from the way in which the empirical intuition is given in sensibility [...] that its unity is no other than that prescribed by the category [...] to the manifold of a given intuition in general” (B144f.).

This envisioned third claim of identity establishes the category’s “validity a priori in regard to all objects of our senses”, whereby “the aim of the deduction will first of all be completely achieved” (B145). The idea is to establish the objective validity of the categories in regard to all objects of our senses by establishing that *the way in which empirical intuition is given* in our sensibility *has the same unity* that intuition in general has in falling under the categories. This way consists in the actual forms of our sensible intuition, namely in space and time. Thus, Kant has to show that *these forms themselves* exhibit the unity of the categories.

His argument, again, proceeds in three main steps. Accordingly, I will now treat how Kant justifies

1. that reference of the categories to determinate objects is only possible through empirical intuitions (in §§22, 23) (§3.1, below),
2. that reference of the categories to objects of empirical intuitions is only possible through the form of empirical intuitions (in §24) (§3.2, below),⁷⁹ and

⁷⁸ Cf. A90/B122f., B148f.

⁷⁹ The way I read §§22–24 in this essay is shaped by the reading Johannes Haag has proposed of these paragraphs in Haag and Hoepfner (2019: 90 ff.).

3. that all objects of our senses fall under the categories by establishing that the unity of space and time is the same as the unity of the categories (in §26: B160f.) (§3.3, below).

3.1 The Categories Can Refer to Determinate Objects Only through Empirical Intuitions

Kant argues in §22, and elucidates in §23, that categories refer to determinate objects “only through their possible application to *empirical intuition*” (B147):

if an [empirical; T. H.] intuition corresponding to the concept could not be given at all, then it would be a thought as to form but without any object, and through it no cognition of anything at all would be possible, since, as far as I would know, there would be nothing, nor could there be, to which my thought could be applied. (B146)

Kant has already shown in general what it means to represent objects through the categories, or to purport to do so (in MD and TD1). However, it is still an open question whether objects of the senses can be, and in fact are, as they are represented to be through the categories so that these concepts can be applied to them and are not “without meaning [i.e. empty₂; T. H.]” (A90/B123). The applicability of the categories to *empirical intuitions* is needed since only these, by incorporating sense impressions as indices of the existence of objects, can put us in touch with determinate objects of experience.⁸⁰

Formal specificities that TD1 abstracted from now come into view with the treatment of empirical intuitions in TD2. Intuition as such, the topic of TD1 (and MD), only considers sensible intuition *in general*, which is characterized by the generic structure of synthesis (§1.2, above). But of course, there is no such thing as an indeterminate object in general, corresponding to intuition in general, and no one has ever had an intuition in general.⁸¹ Whatever object there is will be formally determined, i.e. it will have a specific, e.g. spatial and/or temporal form, and whatever sensible intuition can be had will be one with a specific form. We simply do not know, and cannot know,

if there could be anything that corresponds to this determination in thought [through the categories, e.g. the category of substance; T. H.] if empirical intuition did not give me the case of its application. (B149)

⁸⁰ See A20/B34, B147, A225f./B272f.; *Refl* 4636 17: 620.

⁸¹ See Allison (2015: 407f.).

Only the applicability of the categories to *empirical intuition in a specific form* will show that objects are the way they are represented to be through these concepts, giving the categories a determinate meaning, or successful reference. The only candidate available to us is the form that our empirical intuitions actually have, namely space and/or time: “*Our sensible and empirical intuition alone can give them [the categories; T. H.] sense and meaning.*” (B149) Kant will thus have to consider the applicability of the categories to objects of our (human) empirical intuitions with their specifically spatial and/or temporal form. But to establish that our empirical intuitions fall under the categories means to show that what is specific about them does, i.e. the form they all share. This brings me to the second and third steps of TD2.

3.2 The Categories Can Refer to Objects of Empirical Intuitions Only through the Form of Empirical Intuitions

To establish that our empirical intuitions fall under the categories comes down to showing that their *spatial and/or temporal form* does. Since this form characterizes our way of receiving objects in sensibility, this is tantamount to the categories’ “objective reality, i.e. application to objects that can be given to us in intuition” (B150f.).⁸² But this requires *that form itself* to possess synthetic unity or rest on acts of synthesis since the unity of intuition alone is that “through which an object is given” (B144n). The unity of the specific form of our sensible intuition must fall under the categories if they are to be objectively valid of all objects that can be given to our senses.

According to §24, “*determinate intuition*”, i.e. intuition of determinate objects within a specific form, requires “consciousness of determination” (B154) in synthesis. Only with such a synthesis can space and time figure as *forms of intuitions of objects*, and not just as mere forms of receiving sense impressions (§1.2, above). Figuring as the former is required to figure as the latter, which on its own would only give us “the mere *form* of intuition, but without combination of the manifold in it” (B154). Mere form of intuition without combination would not hold together, since acts of representing only hold together within the representation of an object. Only the *act of synthesis* will give us a determinate intuition of an object that contains such combination, and can possess the form of intuition not just as receiving, but also as incorporating sense impressions within the representation of an object.

⁸² Cf. A89f./B121–123, A92f./B125f.

Just as sense impressions alone could not constitute representations of the qualities of an object, but merely isolated presentations of simple qualities, so too the manner in which such impressions are received could not, on its own, constitute a representation of the formal, homogeneous features of an object, but only construct formal relations without their objectual relata. Not only must a manifold of sense impressions be apprehended as such in order to allow for the representation of the qualitative features of an object (in the act of apprehension); not only must formally homogeneous (for us humans: spatial and/or temporal) parts be reproduced as parts of the same whole in order to allow for the representation of the formal features of an object (in the act of reproduction); but both these kinds of features, in order to be thus represented as features *of objects*, must be recognized as features of numerically the same objects throughout our acts of representing them (in the act of recognition) (§1.2, above).

In §24 Kant introduces the notion of a *synthesis speciosa*, a synthesis supposed to account for the unity of our specific form of sensible representations.⁸³ It is an “application” and “effect of the understanding on sensibility” (B152). Its task is to “a priori determine the sense as per its form according to the unity of apperception” (B152). It thereby bridges between the specific, spatial and temporal form of our senses on the one hand, and the unity of apperception on the other, by showing the unity of that form to itself be a synthetic, i.e. categorial unity. This brings me to Kant’s third and final identity claim and to the conclusion of TD2.

3.3 The Third Identity Claim and the Conclusion of TD2

To show that there is in fact a determination of the form of our senses according to the categories, the *synthesis speciosa* will have to be shown to be a specific exercise of the act of the understanding thought in the categories (or *synthesis intellectualis*). This in turn will require to show that the specific form of our senses possesses the unity prescribed by the categories, i.e. “that its unity is no other than that prescribed by the category [...] to the manifold of a given intuition in general” (B145). Kant wants to establish that the unity of our forms of sensibility, space and time, originates in the synthesis of the understanding by demonstrating that they share in the unity prescribed by the categories. Again, such a common structure can only be explained if both – the categories

⁸³ See B150 f.

and the unity of our forms of intuition – originate in or are acts of the same capacity.

Demonstrating that the forms of intuition have the unity prescribed by the categories amounts to proving that the categories are objectively valid of all objects of our senses. Kant intends to explain

the possibility to cognize a priori *through categories* whatever objects *may come before our senses*, and not as per the form of their intuition but rather as per the laws of their combination (B159).

To thus categorially cognize objects of the senses in virtue of their synthetic unity requires that “space and time are represented a priori not merely as *forms* of sensible intuition, but themselves as *intuitions* (which contain a manifold)” (B 160), so that

unity of the synthesis of the manifold [...] is already given together with [...] these intuitions, hence also a *combination* to which everything must conform that is to be represented determinately in space or time. (B161)

Space and time, qua intuitions, need to be understood as synthetic unities containing a purely spatial and temporal manifold. This will first allow them to figure as conditions on objects being given to our senses since only determinate intuitions can give us objects. This synthetic unity, according to Kant's third identity claim,

can be none other than that of the combination of the manifold of a given *intuition in general* [...] according to the categories, just applied to our *sensible intuition*. (B161)

To show that it is indeed the same unity, I will now establish, again, a common structure, this time between the unity of space and time, i.e. of the forms of our intuition, on the one hand, and the unity prescribed by the categories on the other, by analyzing the essential features that are common to both. The unity of the forms of space and time will thereby turn out to be the unity that is prescribed by the categories in a specific application of the understanding. According to Kant's Metaphysical Expositions of space and time,⁸⁴ their four essential features are the following:

- i) Space and time, as systems of relations between individual objects of the senses, *are the forms of our sensibility*, and are required for the very possibility of spatial and temporal determinations of objects based on sense impres-

⁸⁴ See A23–25/B38–40, A30–32/B46–48.

- sions, i.e. for representing objects as external and next to each other, as successive or simultaneous (first Metaphysical Expositions).
- ii) Space and time, rather than being representable as determinations of objects, *have a unity that is independent from representing objects in them*, whereas, by contrast, representing individual objects of our senses depends on representing a unitary space and time that contains them (second Metaphysical Expositions).
 - iii) Space and time *are homogeneous wholes* in that spatial and temporal parts are always homogeneous parts of the same space and time (third Metaphysical Exposition of space, fourth of time).
 - iv) Space and time *contain an infinite variety of given spatial and temporal determinations* that can only be determined by limiting that given variety (fourth Metaphysical Exposition of space, fifth of time).

These features show that space and time, as intuitions, are in fact shaped by synthesis, and thus possess the unity prescribed by the categories.⁸⁵ Namely, they exhibit, in that order, our spatially and temporally formed receptivity, and the exercises of the acts of recognition, reproduction, and apprehension (§1.2, above) with respect to purely spatial and temporal manifolds, i.e. purely formal spatial and temporal positions and relations:

- i) *Receptivity* as the passive ability to receive sense impressions within certain forms, i.e. “the *synopsis* of the manifold a priori by sensibility” (A94), which in our human case happens to possess a spatial and temporal form,⁸⁶ accounts for space and time as mere *forms of sensibility* that contain purely spatial and temporal manifolds, and are required for receiving sense impressions through a certain, i.e. spatial and temporal form, and thereby for referring to individual objects as external and next to each other, as successive or simultaneous.
- ii) The act of *recognition*, as applied to purely spatial and temporal manifolds, accounts for the *objective unity* that space and time have independently from representing objects in them, which, by contrast, can only be represented within the objective unity of space and time, so that “even the purest objective unity, namely that of the concepts a priori (space and time), is only possible through the relation of intuitions to it [to the unity of consciousness in the synthesis of recognition; T. H.]” (A107).

⁸⁵ A connection between the table of categories and the Metaphysical Expositions of space and time, which I take to be a key to a proper understanding of the final step of TD2, has already been noted in Reich (2001: 71 f.).

⁸⁶ Cf. A26/B42, A37/B54, A42/B59 f.; *Met-L1* 28: 181.

- iii) The act of *reproduction*, as applied to purely spatial and temporal manifolds, accounts for space and time as *homogeneous wholes* where spatial and temporal parts always consist in homogeneous parts of the same space and time, which is why without the synthesis of reproduction “not even the purest and first fundamental representations of space and time could originate.” (A102)
- iv) The act of *apprehension*, as applied to purely spatial and temporal manifolds, accounts for space and time as containing an *infinite variety* of given spatial and temporal determinations that are only determinable by limitation of that given variety, which is why “without it [the synthesis of apprehension; T. H.] we could neither have the representations of space nor time a priori” (A99).

This common structure between the representations of space and time and the abilities and acts contributing to synthesis, i.e. the original contents of the categories, establishes that the unity of space and time partakes in the unity of the categories. Space and time, qua intuitions, have categorial unity due to synthesis, and can as such figure as forms of intuition through which objects can be given. Consequently, the categories are objectively valid of all objects that can be given to our senses in the unitary forms of space and time. With this conclusion, the aim of TD has been achieved.

This completes the Analytic of Concepts, i.e. Kant's analysis of a “cognition through concepts” (A68/B93, A69/B94). I have argued that three identity claims allow Kant to reach his intended conclusions in the Analytic of Concepts, and thereby to explain the possibility of a cognition through concepts. To adequately understand these claims, a further elaboration was required – one that Kant himself, to the best of my knowledge, does not provide. I accordingly proposed an analysis displaying the common structure of, respectively,

judgment – synthesis,
logical functions of judgment – categories,
unity prescribed by the categories – unity of space/time.

It is important to note that all three identity claims have features of *representations* as their relata. The first two remain on that level: both account for features of the categories as representations, namely for their apriority and their objective purport. But the third concerns more than features of representations: since it is about the objective success of the categories, it also concerns their *objects*. This transition from features of representations to features of their objects is achieved by establishing that the conditions under which alone objects can be given to us

through the senses must themselves fall under the categories. By thus demonstrating that the forms of the givenness of objects fall under the categories in virtue of their unity, Kant shows that all objects that can be given through these forms must as well.

Bibliography

- Allison, Henry E., ²2004, *Kant's Transcendental Idealism: An Interpretation and Defense*, Revised and Enlarged Edition, New Haven/London: Yale University Press.
- Allison, Henry E., 2015, *Kant's Transcendental Deduction. An Analytical-Historical Commentary*, Oxford: Oxford University Press.
- Conant, James, 2016, "Why Kant Is Not a Kantian", *Philosophical Topics*, 44, 75–125.
- Guyer, Paul, 2001, "Space, Time, and the Categories: The Project of the Transcendental Deduction", in: Ralph Schumacher (ed.), *Idealismus als Theorie der Repräsentation*, Paderborn: Mentis, 313–338.
- Haag, Johannes, 2007, *Erfahrung und Gegenstand. Das Verhältnis von Sinnlichkeit und Verstand*. Frankfurt a. M.: Klostermann.
- Haag, Johannes and Hoepfner, Till, 2019, "Denken und Welt. Wege kritischer Metaphysik", *Deutsche Zeitschrift für Philosophie*, 67(1), 76–97.
- Henrich, Dieter, 1969, "The Proof-Structure of Kant's Transcendental Deduction", *The Review of Metaphysics*, 22(4), 640–659.
- Hoepfner, Till, 2011, "Kants Begriff der Funktion und die Vollständigkeit der Urteils- und Kategorientafel", *Zeitschrift für philosophische Forschung*, 65(2), 193–217.
- Hoepfner, Till, 2021, *Urteil und Anschauung. Kants metaphysische Deduktion der Kategorien*, Berlin/Boston: De Gruyter.
- Longuenesse, Béatrice, 1998, *Kant and the Capacity to Judge: Sensibility and Discursivity in the Transcendental Analytic of the Critique of Pure Reason*, Princeton/Oxford: Princeton University Press.
- McDowell, John, 2009, *Having the World in View. Essays on Kant, Hegel, and Sellars*. Cambridge: Cambridge University Press.
- Reich, Klaus, 2001, *Die Vollständigkeit der Kantischen Urteilstafel*, in: Manfred Baum et al. (ed.), *Klaus Reich. Gesammelte Schriften*, Hamburg: Meiner, 3–112.
- Smit, Houston, 2000, "Kant on Marks and the Immediacy of Intuition", *The Philosophical Review*, 109, 235–266.
- Thöle, Bernhard, 2001, "Michael Wolff und die Vollständigkeit der kantischen Urteilstafel", in: Volker Gerhardt (ed.), *Kant und die Berliner Aufklärung: Akten des IX. Internationalen Kant-Kongresses*, vol. 2, Berlin/New York: De Gruyter, 477–488.
- Wolff, Michael, 1995, *Die Vollständigkeit der kantischen Urteilstafel*, Frankfurt a. M.: Klostermann.