

CIRCUMVENTING THE METAPHYSICAL DEDUCTION: KANT'S TABLE OF CATEGORIES AS "THE FORM OF UNDERSTANDING IN RELATION TO SPACE AND TIME"

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Abstract: Kant's derivation of the table of categories from logical functions of judgments in the metaphysical deduction remains one of the least convincing arguments of the *Critique of Pure Reason*. This article presents an alternative approach to the question of the *a priori* origin of the table of categories. By circumventing the metaphysical deduction, I show the possibility of demonstrating the exact functions and necessity of the twelve categorial forms as emerging from the *interaction* of the synthetic unity of apperception with the manifold content of the *a priori* intuition of space and time. I argue that this *a priori material* of cognition imposes a constraint on the spontaneity of understanding, thus giving rise to the specific rules of synthesis that make up the table of categories. On the reading I suggest, the table of categories can be understood as expressing the *a priori* form of self-consciousness in the face of space and time.

Despite the problematic status of its origins in formal logic, the table of categories is one of the most significant achievements of Kant's *Critique of Pure Reason*.¹ It comprises twelve *a priori* concepts that Kant demonstrates as being universally applicable to all objects of experience as their conditions of possibility. The standard reading holds that Kant derives these categories from a parallel list containing twelve logical functions or, forms of judgment that Kant seems to take for granted as necessary and complete (Dicker 2004, 57). This argument, which he calls in the second edition 'the Metaphysical Deduction' (hereafter, MD), establishes a *parallelism* between judgments and concepts. There, Kant claims in retrospect, "the *a priori* origin of the categories in general was established through their complete coincidence with the universal logical functions of thinking" (B159). The issue is, however, Kant's argument for these claims is cursory and opaque, as we don't find Kant even attempting to provide a comprehensive justification of either the necessity or the completeness of his particular list of logical forms that are supposedly the origin of the categories (B146).² A frequent charge is that Kant "simply took them as he found them in the logic texts of his time (Al-

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lison 2004: 134).³ Michael Wolff, who developed an influential defense of the section himself, noted that “[t]wo hundred years of Kant interpretation have not been sufficient in elucidating the darkness” of this section (Wolff 1995: 42).⁴ Despite several attempts to render it plausible, the MD remains yet to be appreciated by many among Kant’s readers (Guyer and Wood: 9; Allison 2004: 134).⁵

This article proposes a novel way of interpreting Kant’s deduction of the categories in order to resolve the problem of their *a priori* origin. In my view, categories can be better understood if we regard them as emerging from the relationship between the unity of apperception and the *a priori* content of space and time.⁶ In *Transcendental Aesthetic*, Kant claims that the manifold content of pure space and time exhibits an immediate and non-discursive form of unity (A32/B48). Later on, however, Kant regards that unity as merely subjective and in need of being brought under the objective unity of apperception (B160n). I argue that the former and merely *subjective* unity of spatiotemporal content imposes a kind of *constraint* on the spontaneity of understanding, which in effect gives rise to the specific rules of synthesis necessary for all its empirical employment.⁷ In this way of reading, the categories would still originate *a priori* in the understanding, as the *objective* unity of time is not a property of time itself, but an achievement of the synthetic activity of understanding. However, the specific rules that make this unity possible are not merely intellectual forms that are defined in opposition to sensibility but are rather intellectual solutions to spatiotemporal puzzles. In other words, the *intelligibility* of the categories as the necessary and exhaustive functions of the understanding *presupposes* their original domain of application, i.e., space and time.

In section 1, I briefly reconstruct Kant’s argument for MD and show how it fails to justify the thesis that the categories have an *a priori* origin in the understanding. MD fails, because, for Kant, the argument for having an *a priori* status is not distinguishable from an argument for objective validity. I also examine the most common alternative strategy of complementing the shortcomings of MD with ‘the Transcendental Deduction’ (hereafter, TD), which shows how categories are objectively valid. I claim that as long as the argument for the deduction of the categories rely on the validity of MD, the introduction of the principle of apperception does not sufficiently demonstrate the *a priori* origin of the categories. In section 2, I provide a close reading of the third step of MD (MD3) alongside the second step of TD (TD2) in order to show how Kant remains consistently committed to space and time as the conditions for the intelligibility of the objective validity of the categories, *ergo* for the claim of their *a priori* origin.

Section 3 sets off from Kant’s *own* definition of the concept of TD as the exhibition of “the form of understanding in relation to space and time” (B168–9). Here I provide a brief summary of Kant’s overall strategy in the

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'Principles' as a transcendental argument showing how categories emerge as synthetic solutions to the problems that are internal to the problem of the apperceptive constitution of the unity of space and time. I argue that, if the primary significance of the categories is to fix the problems related to the unity of our consciousness of spatiotemporal content, then they must be constitutively informed by the constraints posed by this *a priori* material of cognition. The table of categories thus can be read as "the form of understanding in relation to space and time" (*Ibid.*). In this way, we can also understand how Kant solves the problem of Humean skepticism, because even the skeptic must presuppose the unity of space and time to attempt doubting the validity of categories. In conclusion, I respond to some likely objections to this attempt of explaining the categories independently of the logical forms of judgment.

I

MD is located in the section "On the Clue to the Discovery of All Pure Concepts of the Understanding" (A66–83/B91–116). Its task is to provide a complete and systematic inventory of our *a priori* concepts and its argument consists of three steps. In the first step (MD1), Kant defines understanding as "a faculty for judging" and judgments as "functions of unity among our representations," as well as fixing the meaning of concepts to their possible use in judgments (A68f/B93f). The second step (MD2) lays out the table of judgments, which provides the guidelines (*Leitfaden*) for the overall organization of the table of categories (A70/B95).⁸ This table comprises a systematic list of the functions of unity in judgments, organized under the four titles of quantity, quality, relation, and modality, with each containing three sub-headings. A simple way to read the table is to assume that any given judgment instantiates these four characteristics (Dicker 55). The first title, quantity, defines the extension of a statement. In the judgment "All bodies are divisible," the predicate applies to all objects that fall under the subject (Allison 2004: 138). The quality in a judgment expresses whether and how a predicate falls under the scope of the subject. In the example above, divisibility is affirmed of the concept body. The relation in a judgment expresses how two notions are "subordinated one to another" (Kant 1992: 601). The example above expresses the subordination of a predicate to a subject. In contrast, the hypothetical form would express the relationship between two judgments as ground and consequent ("If A, then B"). Lastly, the modal aspect of a judgment does not say anything regarding its content but expresses the "value of the copula in relation to thinking in general" (A74/B100).⁹ Kant's point seems to be that the modal value of a judgment pertains to its relationship with other propositions in more complex judgments and syllogisms. In this sense, judgments are problematic, if they are merely a component in another judgment, like "If something is a body, then it is divisible" but assertoric if

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they serve as the minor premise in a hypothetical syllogism, as in “But *this is a body*. . . .” (Longuenesse 159).¹⁰

The third step (TD3) introduces the table of categories (A80/B106) as coinciding with the logical functions of thinking introduced at TD2. The table of categories is organized according to the same titles and its content exhibits a general parallelism between categories and logical functions. A common way of interpreting this transition is by appealing to Kant’s distinguishing between general and transcendental logic. While the former “abstract[s] from all content” and deals with “empty” forms, the latter is concerned with how judgments can be about objects that are given by intuitions. Accordingly, categories express the ways in which the understanding must represent the synthetic unity of its representations in concepts such that these can be taken up in terms of the discursive functions of the table of judgment (Guyer 2010: 127). In this way, for example, categorical judgments (“A is B”) can refer to objects only if objects are conceived of as substances with accidents.¹¹

Kant claims, however, that, unlike Aristotle, he has not generated the categories “rhapsodically,” “rounding them up as he stumbled on them” but “systematically,” through a “principle, namely, the faculty for judging” (A81f/B106f). It thus *seems* that it is *because* “the understanding is completely exhausted, and its capacity entirely measured” in the logical functions of thought he lays out in MD2, Kant is assured of both the *a priori* origin and the completeness of his list of categories.¹² However, there is one particularly troubling issue with this common way of reading, which is simply too *meta-physical* for a philosopher who gives credit to David Hume for “awakening him” from his “dogmatic slumber” (Kant 2004, 10).¹³ The common way of reading prescribes the necessary form of all objects based on logical forms of judgment that are *taken for granted*, thus begging the skeptical question regarding the origin of these logical forms *themselves*. Markus Kohl, in a recent critique, challenges the self-sufficiency of MD along these lines, pointing out that Kant’s impetus for a ‘deduction’ of the categories was fundamentally a response to Hume’s rejection of the *a priori* status of our fundamental metaphysical concepts (Kohl 2018).

For Hume, all our representations are empirical and discrete. Therefore, any logical term, particularly the categories of substance and causality, that postulates a necessary link between them gets entangled in the problem of induction, namely, generalizing from the habitual ways in which the world happened to appear to us in experience (Hume 2007, 46f). In contrast, Kant is typically taken to argue in MD that these concepts originate as the functions of synthetic unity that are necessary for the objective validity of our categorical and hypothetical judgments. Note, however, the quite ‘rhapsodic’ way, in which Kant announces the table of judgments:

If we abstract from all content of a judgment in general, and attend only to the mere form of the understanding in it, we find that the function of thinking

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in that can be brought under four titles, each of which contains under itself three moments. (A70/B95)

In my view, Hume's skepticism about the categories can be extended to the logical forms of judgment themselves and one thus might dispute their *a priori* status, possibly suggesting that they merely reflect the habitual conventions of eighteenth century European philosophical discourse, rather than embodying the universal forms of thought intrinsic to all rational beings.¹⁴ Such a critique would then undermine the *a priori* foundation of the categories, since Kant's enquiry into the possibility of synthetic *a priori* judgments aim precisely to circumvent such empirical conclusions and affirm a non-empirical genesis for the categories. Therefore, we could argue with Kohl that the defense of the categories' *a priori* status is *inseparable* from the transcendental argument advocating their necessity for the possibility of experience. There is some textual and scholarly support for this view.

The overall argument of MD3 already anticipates the transition into the domain of transcendental logic (Longuenesse 1998: 149). Kant begins his argument by underlining that, unlike general logic, transcendental logic does not "abstract from all content" and thereby deal with "empty" forms without "any content" but engages with the *a priori* content of space and time (A76f/B102). Indeed, Kant modifies his definition of understanding as "pure synthesis, generally represented" (A78/B104), in which pure synthesis refers to the "action of putting different representations" given a priori in space and time "together with each other and comprehending their manifoldness in one cognition" (A77/B103). He moves on to postulate the identity between the general and transcendental uses of understanding, which becomes the basis of the complete coincidence between logical functions in judgments and categories that make up the concept of an object in general. Let's call it the *identity thesis*:¹⁵

The same function that gives unity to the different representations in a judgment also gives unity to the mere synthesis of different representations in an intuition, which, expressed generally, is called the pure concept of understanding. (A79/B104f)

This passage reveals that Kant does not argue for the systematic origin of the categories *exclusively* based on functions of thinking that "abstract from all content" (A70/B95). Rather, it is *because* these functions are necessarily operative in the pure synthesis of intuitions that we find an unsurprising *quid facti* formal match between categories and judgments (Allison 2004: 153). Therefore, the argument for the *a priori* origin of the categories can only be complete once Kant proves their objective validity. This is the task of TD, which explains how categories can provide "a priori cognitions of objects of an intuition in general" (B159). Kant's argument runs as follows:

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First, Kant defines an object as “that in the concept of which the manifold of a given intuition is united” (B137), implying that an object’s unity as the subject of its properties is not a worldly fact, but rather constituted by the rule-following synthetic activity of consciousness. Kant infers two conclusions from this premise. The first is the “principle of the synthetic unity of apperception,” which indicates that the first rule of all synthesis is that all representations must be attributable to a singular consciousness continuous and self-identical across time. This consciousness can spontaneously reflect on its “transcendental unity” by producing the generic representation “I think,” which stands in a necessary connection with all intuitions (B131–133). The second is the transcendental function of categories. Within the framework of apperception, the categories, as outlined in Kant’s table, express the essential rules of synthesis that determine the synthetic unity of representations as a *necessary* unity and thereby distinguishes the *object* from a contingent combination of mental content (A191/B236). For example, while the hypothetical judgment “If I carry a body, I feel a pressure of weight” denotes a subjective form of apperception, the categorical judgment “The body is heavy” (B142) denotes an object-related modal determination that is governed by specific rules that limit alternative predicative possibilities (B159–61, Kant 2004, §17).

For most commentators, Kant’s establishment of the principle of apperception as the central tenet in logic provides the sought-after necessary link between forms of thinking and objects of experience and thereby show the *a priori* validity of the categories (Wilkerson 1976, 94; Allison 2010, 388).¹⁶ However, the major problems with the deduction still persist. Even if Kant demonstrates the necessity of the functions of thinking for the constitution of objects, his claims for the *a priori* origin of *exactly this particular set* of functions remains vulnerable to the Humean skeptical challenge as reiterated by Kohl, or other post-Kantian revisions of the table.¹⁷ Thankfully, Kant himself provides us a better argument for the categories that *can* be understood *circumventing the metaphysical deduction*.¹⁸

II

In my view, what obscures Kant’s argument for the deduction of the categories is the imposed marginalization of the contributions of the transcendental aesthetic to the formation of the content of transcendental logic, especially the categories.¹⁹ This prevalent interpretive tendency can be traced back to Dieter Henrich’s seminal 1969 paper, wherein he argues that Kant’s TD in the B-Edition exhibits a “two-steps-in-one-proof” structure. He regards this as a critical issue that must be addressed by any successful interpretation of the deduction (1969, 67–8). Henrich delineates the first step (§§15–20) as demonstrating the universal necessity of a categorially enhanced apperceptive synthesis of intuitions. In Kant’s terms, “the explanation of the way in which concepts can relate to objects *a priori*” (A85/B117). The second step

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(§§21–27) explains how categories specifically apply to space and time and objects in them, given their status as the forms of intuition inherent to the human mind.²⁰ One often cited reason for this sidelining of space and time is that, for Kant, categories are supposed to originate intellectually, in understanding alone (B144). However, as I argue in this section, while the pure content of space and time provides understanding with the a priori “matter” for the categories, the *formal unity* of space and time is entirely a spontaneous effect of understanding, as it brings this content under the synthetic unity of apperception.²¹

The marginalization of space and time for Kant's deduction of the categories seems to be a hermeneutic imposition, because Kant is very clear, even as early as in MD3, that what makes transcendental logic object oriented is “. . . the manifold of sensibility that lies before it *a priori*; which the transcendental aesthetic has offered to it. . . .” (B102/A76f).²² Kant underscores that the synthesis of this manifold that belongs to space and time is “pure,” because it is “given not empirically but *a priori*” (A77/B103). He argues that “pure synthesis, represented universally [*allgemein vorgestellt*], yields the pure concept of the understanding [*reinen Verstandesbegriff*],” i.e., the category (A78/B104, translation modified). If we return to the identity thesis, we find the same formulation repeated: a category is the function that “gives unity to the mere synthesis of different representations in an intuition” (A79f/B105f). It thus seems obvious that, in Kant's perspective, the categories that are *a priori* and necessary are intelligible *as such*, only in relation to the types of objects that are available to us, which are invariably framed within the dimensions of space and time. If this is correct, then TD1 must likewise be incomplete without being integrated into TD2. The following passage can be adduced as a strong support for this claim:

That we cannot even give a real definition of a single one of them [categories], i.e., make intelligible the possibility of their object, without immediately descending to conditions of sensibility, thus to the form of the appearances, to which, as their sole objects, they must consequently be limited, since, if one removes this condition, all significance [*Bedeutung*], i.e., relation to the object, disappears. (A241/B300)

This passage contradicts Henrich's claim that, according to Kant, categories can be thought of applying to intuitions in general, independently of space and time, which he regards as a specific domain of their application. Kant, however, emphasizes that *no* definition of the categories is possible without descending to the sensible form of the appearances.²³ Without space and time, categories are supposed to lose their meaning (*Bedeutung*) altogether. This, however, is incompatible with the claims of the proponents of MD, such as the meaning of categories being their fixing of the position of terms in a logical form of judgment. One objection to this claim could be that MD is not concerned with either the objectivity of the categories (TD) or, their

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application (Schematism). However, my point is that, for Kant, the question of the origin is not separable from the questions of objectivity and application. These aspects only *appear* to be separated due to Kant's argumentative strategy.

At the end of TD1, Kant underscores that the treatment of the categories in *abstraction* "from the way in which the manifold for an empirical intuition is given"²⁴ is only the "beginning of a deduction" (B144). Indeed, Kant immediately concedes his inability to "abstract from the fact that the manifold for intuition must already be given prior to the synthesis of understanding" (*Ibid.*). This admission points to a non-empirical manifold that is indispensable and inextricable from the processes of understanding. I interpret this manifold as the *a priori* content of space and time as synthesized by the transcendental imagination. Without that looming presence of *a priori* intuitions in the background, the whole argument for the deduction of the categories would be vacuous, insofar as Kant is committed to his famous dictum that "concepts without intuitions are empty" (A51/B75). Kant further notes that the "categories would have no significance" for "a divine understanding," who could represent objects without relying on external intuitions, since they are mere rules for the synthesis of the given material that make up the objects (B145). In other words, categories are pertinent only for a discursive intellect that cognizes by systematically unifying its intuitions, which, for us, are mediated with space and time as the *a priori* forms of our sensibility.²⁵ General logic, which "abstracts from all content" and merely studies the analytic unity of representations, is not up to the task of providing a deduction of the categories beyond simply marking their concurrence with its own forms (A78/B104).²⁶ Instead, transcendental logic aims to be a "logic of truth" (A62/B87) in the sense of being inherently content bound, since it is endowed with the task of establishing the intentionality of the subjective unity of representations.

In TD1, Kant defines the categories in terms of their discursive function of constituting an experience of the objective world from a subjective standpoint. The meaning of concepts is derived from their role as functions of unity in judgments, but Kant no longer regards judgments as merely analytical functions. The transcendental definition of a judgment is "the way to bring given cognitions to the objective unity of apperception" (B141), which is to be contrasted with the subjective unity of apprehension (B142). In this novel context the function of the categories can be no other than expressing the objective unity of the complex content of space and time, from the finite perspective of an individual consciousness. To put it simply, without a strict adherence to the categories, we would lose track of the general unity of space and time and become incapable of distinguishing whether two distinct representations in time are merely combined psychologically, or their conjunction is part of the objective unity of time, the overall form of the world. It is well

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known that, for Kant, the latter is understanding's contribution to experience thanks to the categories. At the end of TD2, however, Kant insists that the "brief concept of the deduction" is nothing but the demonstration of the necessity of the categories to solve this problem of the unity of space and time:

It is the exhibition of the pure concepts of the understanding (and with them of all theoretical cognition *a priori*) as principles of the possibility of experience, but of the latter as the determination of appearances in space and time in general - and the latter, finally, from the principle of the original synthetic unity of apperception, as *the form of the understanding in relation to space and time*, as original forms of sensibility. (B168f, emphases mine)

This definition of the project of deduction makes it clear that TD has an entirely different approach to the categories that is hardly compatible with MD. While MD merely points at the alignment of the categories with conventional logical forms *qua* functions of unity, TD seeks to substantiate their intrinsic necessity in the necessary constitution of objects *a priori*, before we would get a chance to 'abstract from all content' and arrive at the table of judgments. Even if TD1 can arrive solely at the principle of apperception in abstraction from space and time, it cannot further demonstrate the *a priori* origin of the categories without the *a priori* material provided by space and time.²⁷ Therefore, the exhibition of the categories as applying necessarily to space and time cannot merely be a particular interpretation of the categories in relation to two out of indefinitely many forms of intuition. Rather, for Kant, the argument for the transcendental deduction of the categories must be the *same* argument that demonstrates that the consciousness of the objective unity of space and time is possible, *only if* its synthetic unity is determined by *exactly and nothing but* these concepts that make up the table of categories.²⁸

My proposal is straightforward: Categories prescribe how we inevitably formulate our judgments about the world of representations, not because they conform to the given structure of the mind, but because they express the form of the mind as *informed* and thereby *constrained* by its *a priori* material. The table of categories make explicit what kind of rule-following synthetic activity makes possible the unity a shared, objective spatiotemporal framework capable of integrating the cognitive input of all rational subjects. To conclude with a reiteration of Kant's last words in the above quoted paragraph, TD is nothing but the "exhibition of . . . the principle of the original synthetic unity of apperception, as the *form of the understanding in relation to space and time*" (B168f.).

III

The objective of this section is to demonstrate that a comprehensive explanation of the content and form of the table of categories can be achieved by circumventing MD's table of judgments. This methodological circumvention

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aims to delineate what is fundamentally at stake in TD, namely, the *perspectival constitution of space and time* as an objective unity. In Section 2, I have argued that, in MD3, Kant already defines a category in terms of the pure synthesis of space and time (A78/B104) and TD2 defines the deduction of the categories as the exhibition of the principle of apperception in relation to space and time. Therefore, it appears that the pure content of space and time work as a type of *constraint* on the spontaneity of apperception, which yields the table of categories as the particular form of apperception in its *a priori* relation to objects in general. In order to illustrate this transition, I follow the rubric that Kant provides in the “Schematism” section,²⁹ in which each category is defined as a “transcendental time-determination” (A139/B178).³⁰

Kant introduces schemas as intermediaries between sensible and intellectual representations, which are heterogeneous to each other in order to explain how concepts are applicable to sensible objects. He argues that “the appearances must not be subsumed under the categories per se, but only under their schemata” (A181/B223). The schemas provide the necessary link between an empirical perception and the intellectual category because they contain content that belong to both pure intuitions and concepts, as they express the particular form of the “I think” in relation to pure space and time. Kant gives the example of a plate. Both its concept and an object corresponding to it contain “the pure geometrical concept of a circle,” which is “thought” in the former and “intuited” in the latter (A137/B176). Regarding the categories, schemas provide them not only “with a relation to objects,” but also “with significance” (A146/B185).³¹

Without the schemas, categories would be empty, deprived of any content that would be thought under them. Such emptiness, however, would deprive Kant of an argument that demonstrates their objective validity, thus jeopardizing the claim for their *a priori* status.³² But if we take their schematic definitions as *integral* to the argument for their deduction, then we can reach an alternative understanding of the categories not as abstract intellectual forms, but as time-determinations that constrains the spontaneity of the syntheses of understanding in a way that makes possible the objective unity of time. With that, we can now return to the table of categories.

The table of categories is organized under the four titles of quantity, quality, relation, and modality. As *the form of understanding in relation to space and time*, these titles articulate different aspects of the structure of our consciousness of space and time.³³ The modal categories provide the key for reading the table, by expressing “whether and how an object belongs to time” (A145/B184f). Each modal category is thus correlated with a title of the table of categories. The schematic definition of *possibility* is “the agreement of the synthesis of various representations with the conditions of time in general” (*Ibid.*). The first condition of time is its generation as an “extensive magnitude,” a homogeneous series that comprises all appearances (A162/B202).

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Therefore, all possible objects can be expressed as a *unity* of a *plurality* of homogeneous spatiotemporal units.

As a time-determination, *actuality* expresses “existence at a determinate time” (A145/B184). For Kant, the condition of actuality is to be linked with “the material conditions of experience (of sensation)” (A218/B265f). The categories of quality express the “content of time” (A145/B184). The first category of quality is *reality*, which Kant defines as “that to which a sensation in general corresponds,” thus indicating “a being (in time)”. Its schema is the “quantity of something insofar as it fills time,” which Kant defines as an “intensive magnitude, i.e., a degree of influence on sense” (A165/B208). The *real* is the “transcendental matter of all objects” as that which “corresponds to the sensations” that anticipate the empirical filling of time (A145/B184). *Negation* “represents a non-being (in time)” (A143/B182–3). *Limitation* marks the distinction between an “empty time,” when there is no discernible sensation and “filled” time, where we are conscious of a variety of modalities.

Categories of relation express the “order of time,” indicating how different *intensive* units in time *must* be placed in relation to each other under *one single* time (*Ibid.*). The general principle of relational categories is thus the “necessary connection of perceptions” (B218) in time. For Kant, the unity of time is only conceivable through the three temporal modes of *persistence*, *succession*, and *simultaneity*, which correspond to the categories of *substance*, *causality*, and *community*, respectively. Establishing these temporal relationships “precede[s] all experience and first make[s] it possible” (A177/B219). Persistence is the immediate feature of time itself, conceived as an all-encompassing homogeneous series encompassing all possible objects of intuition. Time itself is “unchangeable and lasting,” while everything temporal “elapses in it” (A144/B183). However, given that “time itself cannot be perceived” (A176/B219), our awareness of the quantitative unity of time is necessarily accompanied by a persistent *reality* in time. This *temporal requirement* yields the category of substance, which expresses the “persistence of the real in time” (A144/B183). To put it differently, Kant’s ‘Analogies of Experience’ shows us why we have the category of substance, independently of its coincidence with the categorical form of judgment.

The categories of causality and community express the rules of synthesis that constitute our experience of *succession* (time as a unidirectional flow) and *simultaneity* (in space).³⁴ For Hume, *causality* expresses the necessary connection between two representations, such that whenever we represent one (cause), we must also represent the other (effect) (Hume 2007: 46f). Kant’s temporal schema of causality is similar: whenever something *real* is posited, “something else always follows” (A144/B183). In the second analogy, however, Kant argues that without this schema, we cannot even represent that something has *happened*, because this makes possible our experience of temporal succession. Kant argues that our experience of something happening

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implies that its representation has a *determinate* position in time. However, since the unity of time is not something given, but constituted by apperception, we can only determine the position of a representation relatively, in its relation to other representations. Therefore, the determinate position of something in time is nothing other than the fixing the particular order of the succession of our conscious states, such that we attach one of them the fixed temporal attribute of being ‘before’ and the other ‘after.’ In this way, whenever we represent to ourselves something happening in time, we place them in an irreversible temporal order that also constitutes our experience of time as a unidirectional flow. When the order of apprehension of two discrete representations is perceived as immutable and unidirectional, it implies *causation*—the antecedent representation is the cause of the consequent one.³⁵

Lastly, the category of *community* implies the mutual causal interaction of spatial substances and emerges from the temporal problem of experiencing simultaneity: “All substances, insofar as they can be perceived in space as simultaneous, are in thoroughgoing interaction” (B256). Kant first notes that the experience of simultaneity in space demands an order of successive apprehension that is *reversible*. In the analogies, Kant invites us to consider the difference between our empirical experiences of a ship being driven downstream (A192/B237) and our successive apprehension of the earth and the moon (A211/B257). In the former, the flow of the stream becomes the placeholder of the unidirectional flow of time, through which we represent the irreversibility of the order of succession. In the latter, “the perceptions of these objects can follow each other reciprocally” (*Ibid.*). However, since we cannot represent the totality of the moon and the earth *simultaneously*, Kant claims that we can experience simultaneity of all substances in the universe only by presupposing “an interaction among them” (A210/B258). This interaction, however, is not an intellectual imposition on discrete particulars, but a spatiotemporal constraining of our apperceptive syntheses that makes it possible for us to experience them as discrete in the first place. In other words, Kant’s answer to Hume consists in shifting the *metaphysical* problem of the logical link between discrete appearances as a problem intrinsic to the perspectival constitution of space and time.

Conclusion

In this paper, I propose an alternative approach to interpreting Kant’s argument for the deduction of the table of categories by foregrounding the significant role of the perspectival structure of space and time in the ‘Principles,’ rather than the table of the logical forms of judgment. I argued that Kant’s claims for the *a priori* origin of the categories would fail, unless we can integrate the ‘Principles’ as the culminating moment of Kant’s argument in TD. I have shown that there are some textual grounds for this holistic approach to the ‘Transcendental Analytic,’ because Kant repeatedly and explicitly defines

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his project of a deduction of the categories in relation to the *a priori* content of space and time. Lastly, I provided a brief summary of Kant's overall strategy in the 'Principles' as a transcendental argument that shows how categories emerge as synthetic solutions to the problems that are *internal* to the problem of the apperceptive constitution of the unity of space and time. In my view, categories are the products of the *a priori* constraint posed by the forms of intuition on the spontaneity of our understanding. Thus, instead of being merely intellectual forms, they are reinterpreted as synthetic a priori time-determinations that are *necessary* for the unity of space and time. This constitutes Kant's response to Humean skepticism, because even the skeptic, who doubts the logical link between discrete appearances must presuppose the categorial constitution of space and time. In my reading, Kant's table of categories seems also complete, because we can see how they are necessary for establishing the consistency of our spatiotemporal framework.

One likely objection to this strategy is to point out that, while Kant emphasizes the purely intellectual origin of the categories, my interpretation makes them essentially bound to the particular content of our forms of sensibility. However, in my interpretation, categories still originate in understanding alone, as the *a priori* syntheses of spatiotemporal content are brought under the objective unity of the 'I think.' In other words, I don't claim that categories can be derived from the sensuous content of space and time themselves, but that categories emerge as the internal solutions to the problems related to the unification of pure spatiotemporal content. A second likely objection is that Kant holds categories to be valid for all forms of intuition beyond space and time. In my view, that point of Kant merits at most as a rhetorical device since we don't know of any alternatives to space and time as forms of intuition and thus are in no position to provide an argument for that claim. However, my reading does not deny the possible application of the categories to noumenal entities in regulative and normative contexts. In these instances, we simply exempt the objects of thought from the requirement to be a part of the objective unity of space and time.

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Notes

1. References to Kant's works are to the volume and page number of the Akademie edition (Kant's *Gesammelte Schriften*) except for the references to the *Critique of Pure Reason* (CPR), which is cited according to the standard A/B pagination, where "A" refers to the first (1781) edition of the text and "B" refers to the second (1787) edition. English translations are from the Cambridge Edition (Kant 1999).

2. At the cited passage, Kant concedes that he cannot provide "a further ground" as to "why we have precisely these and no other functions for judgment." He reiterates the same resignation in a later letter to Marcus Herz, dated May 26, 1789 (313). Kant himself, in *Metaphysical Foundations of Natural Science*, engages with a sympathetic reviewer, who complained that this part which "ought to be precisely the clearest, is rather the most obscure" and "without an entirely clear and sufficient deduction of the categories the system [of the CPR] totters on its foundation" (Kant 2002: 188–9n). Kant dismisses the claim that the argument for the deduction is essential for its ultimate critical goals, while admitting the "obscurity" of "this part of the deduction" (*Ibid.*, 190n).

3. Kant concedes in *Prolegomena* that he found the list as "already finished . . . [in] the work of the logicians" (Kant 2005: 115–6). A possible reference would be Georg Friedrich Meier's *Excerpts from the Doctrine of Reason* (1752), which Kant used as a basis for his lectures on logic throughout his life (Kant 1992: xvii). Fichte and Hegel were dissatisfied with this attitude and accused Kant with something that he himself accuses Aristotle of, namely, rounding up the categories without a principle (A81/B107). Both Fichte and Hegel went on to deduce their own versions of a logical system of pure concepts, Fichte from the synthetic actions of the pre-conscious and universal 'I' (Fichte 1988, 243ff) and Hegel from the pure concept of being (Hegel 2010, 41). Hegel, among other revisions, also added teleological judgments and the corresponding category of 'purpose' to his logic (2010, 734–54).

4. Cf. Michael Wolff, a contemporary proponent of MD, who claims that Kant provides *some* grounds, if not *more* (Wolff 1995:180), referring to the nuances of Kant's account in A71–76/B96–101. However, Wolff also concedes that the text of the CPR here is "enthymematic" (Wolff 2017: 83) and supplements Kant's account with resources taken from Aristotelian logic.

5. New interpretations have significantly improved the plausibility of MD's argument, but they often appeal to notions that are not provided in CPR. Reich, one of the early defenders of MD admits that his defense of the table of judgment is not exegetical of Kant's text but a conceptual contribution in the spirit of Kant's project (Reich 1992). For contemporary defenses, see Brandt (1991), Wolff (1995, 2004) and Hoepfner (2021). A proper engagement with their highly subtle arguments is beyond the scope of this paper. Here, I'm rather concerned with establishing an alternative strategy of explaining the categories without appealing to *the table of judgments*.

6. I suggest taking MD merely as a *heuristic* guideline (*Leitfaden*) for an initial discovery of the categories, whose actual deduction is only provided in the later 'System of the Principles of Pure Understanding' (A158–218/B197–265). Cf. Watkins, who argues that Kant's analogies presuppose MD (Watkins 2005: 209). I don't reject the role of MD for Kant's exposition, but only claim that the table of categories, once given, can

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be understood solely in terms of the internal problems related to the constitution of the unity of time.

7. The constraint seems to be necessary to avoid the pitfall of a form of conceptualism, in which the mind would behave like, in McDowell's famous metaphor, as "spinning frictionless in a void" (McDowell 1996, 11). Though McDowell's is critical of the facticity of space and time as forms of intuition, my interpretation will show how their formal intuition is necessarily conceptual, because the understanding must bring that content under the *objective* unity of apperception.

8. Allison notes there is a dispute whether Kant intends MD to refer entirely to the "Clue" section, or only its third sub-section "On the pure concepts of the understanding or categories" (Allison 2004, 472n1). In this paper, I assume the MD primarily refers to this second sub-section, which *in part* subsists through the third step as well.

9. In his lectures on logic, Kant relates modality explicitly to the "cognitive capacity" and thereby anticipates transcendental logic even at this point (Kant 2002: 604).

10. Cf. Allison, who claims that "the function of modality is to integrate a judgment within a presupposed system of knowledge" (Allison 2004: 139).

11. Waxman points out that a logical function becomes a category when we "irreversibly fix the logical position of concepts" (Waxman 2013: 289). For instance, while the generic form "A is B" retains the same form in "B is A," if we determine A as a substance, then it is fixed in its subject position in a judgment. However, Waxman concedes that this feature is not included in Kant's discussion of the categories. Cf. Allison, who argues that we cannot form a categorical judgment about an object without being able to distinguish between its predicates and the subject that bears them (Allison 2004: 148).

12. For a reading of MD as independently proving the a priori status of categories, see Hoepfner (2022).

13. There are well-founded concerns regarding the underdetermination of the link between both tables, such as that between universal judgments and the category of unity (Yasuhiko 2022) and between infinite judgments and the category of limitation. For a contemporary account that attempts a comprehensive explanation, see Hoepfner (2021). For a defense of Kant's derivation of the categories of quantity, see Haec (2024).

14. A similar criticism was raised by Cavailles, who argued that Kant makes the validity of logic "dependent on the self-illumination of a consciousness perfectly transparent to itself" (Cavaillès 1960: 2), quoted in Longuenesse (1988: 75).

15. My argument in Section III can also be read as grounding this particular thesis of MD, but a proper discussion of the links between categories and judgments in the 'Principles' would be beyond the scope of this paper.

16. One notable exception is Dennis Schulting, who argues that the deduction is not only incomplete until Kant introduces the principle of apperception but also that the categories can be shown to follow solely out of the principle of apperception, thus circumventing the logical forms of judgment for their deduction. He performs a one-by-one deduction of each category as the condition for pure I's synthetic activities having an object in general (Schulting 2019). However, his analysis omits how thinking is *logically* constrained by the forms of intuition.

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17. Cf. Hegel, for instance, adds teleological judgments and the corresponding category of ‘purpose’ to his logic (2010, 734–54) and the twentieth CE notion of a “historical a priori” (McQuillan 2016).

18. In the third section, I argue that the table of categories expresses the conditions for the apperceptive unity of pure space and time and that they can be understood independently of appealing to the logical forms of judgment.

19. Beatrice Longuenesse is an exception. She argues that Kant’s famous footnote to B160 mandates a re-reading of MD through the figurative synthesis of space and time. However, she is still committed to the primacy of MD, insofar as she claims that the functions of thinking as listed in the table of judgments is the “telos” of all understanding, which implicitly guides the synthetic activity of imagination to yield forms that are compatible with being articulated through the logical forms of judgment (Longuenesse 1998: 246). My reading differs in that I argue that we *can entirely* circumvent the logical forms of judgment and still arrive at a table of categories through TD and Analytic of Principles.

20. Hyoung Sung Kim provides an excellent categorization of the history of the reception of Henrich’s problematization in terms of ‘insufficiency’ (Allison 2010) ‘aspect’ (Gomes 2010) and ‘sufficiency’ (Pippin 1982), but none of these positions problematize the primacy of the logical forms of judgment in shaping the table of categories (Kim 2023).

21. Kant introduces transcendental imagination in the second part of the TD as *a capacity of the understanding* to “effect” and determine sensibility a priori (B151–3). Transcendental imagination employs *both sides at the same time*. While it is responsible for the “synthesis of the manifold of sensible intuition, which is possible and necessary a priori,” as a spontaneous capacity of the understanding, it is “productive” and determines the a priori content of space and time as an objective apperceptive unity. Additionally, Kant asserts that this synthesis constitutes the “first application” of the understanding, forming the “the ground of all others” (B152).

22. Of course, the same sentence follows in this way: “. . . in order to provide the pure concepts of the understanding with a matter, without which they would be without any content, thus completely empty.” However, this should not be taken to imply that their a priori origin is conclusively established in MD, which, in fact, *merely* states their coincidence. The matter provided by pure space and time will prove to be essential for their transcendental deduction.

23. The sensible forms of appearances must not be confused with the objects that are empirically given through the senses. In my reading, the task of TD is to position the table of categories in the a priori nexus of apperception and space and time.

24. Since CPR’s concern is limited with the domain of the a priori, this reference to the “empirical” must be taken to refer to space and time as the *a priori* and non-empirical conditions for empirical objects.

25. While Kant concedes that categories would be valid for all finite forms of understanding, regardless of their forms of sensibility, I simply take this statement as a rhetorical move with the intent of establishing the principle of apperception, rather than the content of the table of categories. Otherwise, Kant would need another proof why *these* categories necessarily apply to alternative forms of intuition, other than space and time.

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26. Cf. Kant's similar remarks about the abstract character of general logic (A51/B75, A54/B78).

27. In principle, Kant should not even be able to reach the principle of apperception without presupposing the *a priori* manifold of sensibility that he refers to in §§16–7. Later, this same *a priori* content is revealed as a product of transcendental imagination (B152f).

28. Using terminology from philosophy of science, we can describe MD as the context of the *discovery* of the categories as they come up in the study of formal logic without a critical examination. In contrast, TD is concerned with their context of *justification* (Reichenbach 1938), necessitating an analysis of the specific type of unity exhibited by space and time. Cf. Allison also argues that while MD is interested in the question of *quid facti*, TD investigates the question *quid juris* (Allison 2001: 67–84).

29. Conventional interpretations ascribe to this section a supplementary role, as describing how the independently intelligible categories are applied to the forms of intuition and the argument has historically been considered a failure. Wilkerson considers it “useless” and can be “ignored without loss” (1976, 94). For a recent defense of schematism, see Stang (2023).

30. Kant seems to skip a detailed analysis linking spatial relations to categories, as he believes that our access to space, the form of external sense, is mediated entirely through time. For instance, since we cannot apprehend space in its entirety at once, our perception of any complex region of space unfolds over time. He illustrates this with the example of drawing a line in thought (A102). Van Cleve objects on phenomenological grounds, arguing that we can picture a line instantaneously (1999, 86). In response, Golob contends that even small-scale 2D objects require a temporal process, which depends on the categories to the extent that we are conscious of their constituents as discrete particulars (2011, 520–4).

31. For Kant, schemas are not exactly the *content* of the categories, as concepts typically derive their content from experience. Instead, schemas are rules of organizing pure spatiotemporal relations that enable categories to apply to sensuous particular content experienced in space and time.

32. See Section 1.

33. Kant subjects spatial syntheses to temporal syntheses, because the synthesis of any complex region of space takes time. However, this does not imply that temporal syntheses can take place independently of space, which he defines as the “pure image of all magnitudes for outer sense” (A142/B182). See also the ‘Refutation of Idealism’ (B275f).

34. Watkins provides a classification of extant readings of the second analogy as metaphysical, phenomenological, and epistemological (Watkins 2005: 196f). Strawson reads Kant as a descriptive *metaphysician* and argues that Kant shows us how that causality is implicit in our concept of succession (Strawson 1966: 140–6). The *phenomenological* position takes the categories as making perception possible (Keller 1998). The *epistemological* position claims that categories are necessary only in justifying the claims for objectivity (Guyer 1987: 258f).

35. For Watkins, the concept of causality is strictly intellectual and cannot be reduced to our knowledge of temporal succession. Instead, he claims that we must take it as a rule

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that has its origin in MD and TD (Watkins 209). In my view, the rule concerns nothing but the fixing of the temporal order of succession and thus can only be understood with respect to the problem of the apperceptive unity of time.

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