

## **The Place of Logic within Kant's Philosophy**

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[to appear in *Palgrave Kant Handbook*, ed. M. Altman, Palgrave]

### **1. Logic and the Copernican turn**

At first glance, it might seem that logic does not play a central role in Kant's critical philosophy. Kant himself authored no books or essays on logic during the critical period;<sup>1</sup> indeed, in his whole career, he wrote only one essay specifically on logic, his early 1762 essay "False Subtlety," on the figures of the syllogisms – hence, well before his so-called "Copernican" turn. The most well-known remarks Kant makes about logic during the critical period itself can surely suggest he does not take this discipline to be of much interest for his own revolutionary program. At the outset of the B-edition preface, Kant famously claims that, since the time of Aristotle, logic has been "unable to take a single step forward, and therefore seems in every respect to be finished and complete" (Bviii, translation modified). Indeed, immediately thereafter Kant contrasts the already "finished and complete" standing of logic with the "much more difficult" task that the *Critique* itself will aim to accomplish: that of getting "reason [*Vernunft*]" on "the secure path of a science" (Bix).

This impression can seem to be further confirmed when we look into the content of Kant's critical philosophy itself. The signature doctrine that Kant takes to resolve the various conflicts that reason gets itself into, as it tries to find its way to science – that is, the *transcendental idealism* underlying Kant's Copernican revolution – might seem to be a doctrine primarily concerned with correcting a misunderstanding of the nature of our *sensibility* rather than one concerning thought, inference, or reasoning per se. For one thing, the core of Kant's idealism is presented and developed within the Transcendental Aesthetic, which is the science of sensibility

(A52/B76), rather than in the section of the *Critique* entitled “Logic.” Transcendental idealism consists in the claim that what is immediately given in our sensible intuitions – what Kant calls “appearances [*Erscheinungen*],” and the space and time that they fill – are objects that “cannot exist in themselves, but only in us,” by being contained “in” our “representations [*Vorstellungen*]” (A42/B59; see also A490-94/B518-22). And when Kant does turn, finally, to the task of using transcendental idealism to diagnose what goes wrong with our reason itself, in the Transcendental Dialectic, the problems that reason falls into are explicitly stated not to be due to reason’s failure to operate in accordance with any “**logical** principle,” but rather due to reason’s attempt to go beyond acting in accord with logical principles to asserting the objective validity of certain “**transcendental** principle[s]” (A648/B676).

A closer look at Kant’s critical writings, however, shows these sorts of initial impressions to be deeply misleading. Recent advances in scholarship have helped to make it increasingly clear that Kant’s thoughts about logic stand at the center of his philosophical development, throughout his career.<sup>2</sup> For several reasons this should come as no surprise. For one thing, Kant gave lectures on logic continuously, every year except one, and more frequently than on any other topic.<sup>3</sup> Indeed, his own appointment was as a professor of logic (and metaphysics). With respect to the critical period in particular, Kant makes clear (in the very same B-preface passage noted above) that his critique of reason itself actually “*presupposes* [*voraussetzt*] a logic for the assessment [*Beurteilung*]” of the alleged bits of “information [*Kenntnis*]” that are taken to make up the science of reason (Bix, translation modified). What is more, by far the largest part of the first *Critique* itself is actually classified as a *kind* of logic – namely, what Kant calls a “transcendental logic” (A50-704/B74-732). Finally, as we will see below in more detail, at the outset of each main part of the *Critique*’s Transcendental Logic (the Analytic and the Dialectic), Kant explicitly points to the findings of the traditional logic – more specifically, its account of the forms of judging and

inferring – as providing the key starting point for the relevant stage in the investigation of the possibility of the science of reason itself (see A299/B356).<sup>4</sup>

In what follows I will limit my task primarily to spelling out in more detail how Kant’s thinking about logic during the critical period shapes the account of philosophy that he gives in the *Critiques*. I will focus especially on the role that Kant accords to logic within theoretical philosophy. I will proceed as follows. First, I will provide an account of what Kant means by claiming that logic is the science of “understanding in general” and the activity of *thinking* (part 2). I will then turn to Kant’s motivations behind his formation of the idea of a new “transcendental” logic, drawing out in particular how he means to differentiate it from the traditional “merely formal” approaches to logic, insofar as transcendental logic investigates not just the basic forms of the activity of thinking but also its basic *contents* (part 3). I will then show how Kant’s understanding of both of these logics directly factor into the first *Critique*’s more general project of the critique of reason, now considered not just as a capacity for a certain kind of thinking (inferring), but as a possible source of *a priori cognition* (part 4). I will end by taking up an even broader perspective, to show how Kant takes the findings of logic to provide architectonic structure even to parts of philosophy outside of the doctrine of specifically *theoretical cognition* (part 5).

## **2. Logic as the science of understanding (thinking)**

Kant takes the subject matter of logic to be what he calls “the understanding [*Verstand*],” which he takes to be a “capacity [*Vermögen*]” of our “mind [*Gemüt*]” for a certain kind of representational activity. More specifically, logic is the “science [*Wissenschaft*]” which specifies the “rules [*Regeln*]” or “laws [*Gesetze*]” according to which this capacity acts or is “used.”<sup>5</sup> The most general name for

the representational activity which is distinctive of the understanding is “thinking [*Denken*]” (A69/B94; see also A51/B75 and Pro 4:304). Thinking itself consists in “unifying representations in one consciousness [*Bewußtsein*]” (Pro 4:304; transl modified). Thinking thus contrasts with merely having a manifold of representations in mind, since it involves a unifying of them. Thinking also contrasts with merely having representations in mind unconsciously (see Anthr 7:135), it involves bringing representations to consciousness. Thinking is, however, dependent upon having representations already present in mind, since our understanding “*only* reflects” on what has already been given to our mind, rather than being able to “intuit” (receive representations) on its own (Pro 4:288; emphasis added).

The resulting “*one* consciousness that unifies the manifold” of representations (what Kant also calls a “consciousness of this unity of the synthesis”) is what Kant calls a “*concept* [*Begriff*]”, as he thinks that the very word suggests just this idea of consciously grasping together (A103). For this reason, “to think” can be understood as essentially: “to represent something to oneself in a concept” (DWL 24:695; see also A69/B94) – where what is represented “in” (or through) the concept is a unity of some other representations.

A concept itself “rests on” what Kant calls a “function,” which is “the unity of the action [*Handlung*] of ordering different representations under a common [*gemeinschaftliche*] one” (A68/B93). Kant holds that our understanding possesses a variety of distinct “functions of thinking” (A70/B95), each of which leads to a different kind of consciousness of a unity of a manifold of representations. This consciousness comes in four basic kinds: mere conceiving (JL 9:91-92), judging (JL 9:101-2), inferring (JL 9:114-15), and systematic ordering, as is exemplified in a science (JL 9:139-40). This differentiation in basic kinds of thinking also correlates with a differentiation in which aspect of “understanding in general” is responsible for each type of thinking. Kant thinks that it is understanding in a more “specific” sense that is responsible for

concepts, whereas it is the “power of judgment [*Urteilstkraft*]” that is responsible for judging (A130/B169), and “reason [*Vernunft*]” that is the capacity for inferring (A299/B355) and ordering (A832/B860), respectively. Here is how he exemplifies the first three kinds of thinking in his logic lectures:

The *understanding* is the faculty of representation of the universal [*Allgemeine*] as such. {E.g., the definition of man in general.}

The *power of judgment* is the faculty of representing the particular as contained under the universal {Caius is a man}[,] or the faculty of subsumption.

*Reason* is the faculty of the *derivation* [*Ableitung*] of the particular from the universal ... {All men are mortal. Sempronius is a man, too. Sempronius is mortal.} (DWL 24:703-4)<sup>6</sup>

Although each of these kinds of acts of thinking are distinct from one another, what they all have in common is that they are acts of unifying representations together in one consciousness, that is, grasping them in a unity.

Now, by taking logic to be first and foremost about acts of thinking and the exercise or use of our “powers of mind” (to represent, subsume, derive, and so on) to “unify” things in “consciousness” in various ways, Kant follows the early modern tradition in the philosophy of logic by taking its subject matter to be something essentially mental and hence psychological.<sup>7</sup> This, however, does not mean that logic coincides with the *empirical* study of the mind. This is because Kant does not think that the manner in which logic investigates thinking is restricted to how individual acts of thinking are given to the mind through inner “sensation [*Empfindung*]” or empirical “intuition [*Anschauung*],” in inner appearances – let alone is logic thought to be somehow restricted to these inner appearances themselves. Rather, Kant thinks that there can be a “pure [*reine*]” logic, which “has *no* empirical principles” and so “draws nothing” from the empirical science of the mind. This contrasts with what Kant calls “applied [*angewandte*]” logic,

which would provide “a representation of the understanding and the rules of its necessary use *in concreto*,” which by contrast “can all be given *only* empirically,” and so which “requires empirical and psychological principles” (A54-55/B78-79, emphasis added).

Even so, in both its pure and applied form, logic is a science whose subject matter is a specific sort of mental or psychological activity – namely, thinking. In this it contrasts, first, with other sub-branches of psychology, which are distinguished from logic by the specific mental capacity they have in view. The most prominent contrasting sub-branch in the first *Critique* is what Kant calls “aesthetic,” understood to be “the science of the rules of *sensibility* in general,” where “sensibility” itself is understood to be “the **receptivity** of our mind to receive representations” (A51/B75) – in particular, to receive sensations and intuitions (A50-51/B74-75). The subject matters of aesthetic and logic are therefore importantly disjoint, insofar as “these two faculties or capacities [*Fähigkeiten*] cannot exchange their functions,” since “the understanding is not capable of intuiting anything” and “the senses are not capable of thinking anything” (A51/B75).

Now, by having as their subject matter something specifically mental or psychological (namely, a specific capacity for acts of representing), both logic and aesthetic contrast with two other types of sciences: on the one hand, they contrast with sciences whose subject matter is something specifically *not* psychological, for example, *physics*, understood as the science of corporeal substance; on the other hand, they contrast with sciences whose subject matter is not *specifically* psychological, for example, *ontology*, understood as the science of the most universal predicates of being “in general” (see A845-46/B873-74). The latter contrast is especially worth emphasizing, insofar as Kant’s conception of logic therefore stands at some remove from more recent conceptions of logic which, following Bertrand Russell, take logic itself to be the science with the most universal domain.<sup>8</sup> For his part, Kant takes the subject matter of logic to have a

very specific domain, since not everything is an act of thinking; indeed, not even everything mental or psychological is such an act (namely intuiting). In other words, for Kant, as for his predecessors, the domain of logic is subordinate to both psychology and (*a fortiori*) ontology.<sup>9</sup>

Yet while Kant is fairly traditional in his understanding of the subject matter of logic, Kant departs sharply from his early modern predecessors, and looks more distinctively modern, in his understanding of the *manner* in which logic treats this subject matter. As noted above, Kant is quite explicit that he takes logic to constitute a “science [*Wissenschaft*]” of the understanding and the laws of thinking, whereas earlier authors (for example, the authors of the *Logique* of Port Royal, as well as Georg Meier, the author of Kant’s logic textbook) had taken logic to present “the *art* of thinking.”<sup>10</sup> In §43 of the third *Critique*, Kant himself sharply distinguishes “art [*Kunst*]” from science: “**Art** as a skill of human beings is also distinguished from **science (to be able [Können])** from **to know [Wissen]**), as a practical faculty is distinguished from a theoretical one, as technique is distinguished from theory (as the art of surveying is distinguished from geometry)” (CJ 5:303; see also DWL 24:747). By classifying logic as a science rather than an art, Kant is thereby claiming that logic conveys knowledge (a theory) of thinking, rather than teaching the practical skill (technique) of how to be able to think. One can have the art (skill) of thinking (and so be able to think) without “knowing” thinking in a scientific manner. Logic provides this theoretical knowledge of thinking itself.

### **3. From the science of thinking and to the science of its contents (concepts)**

So far we have been considering the subject matter of logic at a fairly abstract level, as the understanding or thinking “in general.” And though we have touched upon the various forms that thinking can take (conceiving, judging, inferring, systematizing), and have also noted that Kant thinks we can investigate thinking through two routes – *a priori* and empirically (in “pure”

and “applied” logic, respectively) – all of the foregoing specifications of thinking are limited in the following respect: they specify differences only on what might be thought of as the *subject*-related side of thinking, or thinking qua *activity* of a subject. The difference, for example, between judging and inferring is a difference in the form of the *act* a thinking subject engages in; similarly, the difference between considering thinking “purely” and considering thinking as it is actually realized in an individual, concrete, existent subject, and given “empirically” through intuition, is a difference in the kind of relation that the investigating subject bears to the *activity* of thinking.

While Kant accepts that this traditional approach to thinking is valid as far as it goes, he also argues that we can and must go beyond the tradition by taking up a new approach to thinking within logic. Kant’s proposal is that logic should equally consider the *object*-related side of thinking – that is, the fact that in each act of thinking our mind becomes representationally “related” to (“directed” at) some object or other. As Kant sees it, by remaining with a more subject-directed characterization of thinking, the traditional logic has been treating the understanding “without regard to the difference of the *objects* to which it may be directed”; it has done this because it means to be concerned especially with what is “*universal [allgemein]*” for thinking as such – “the *absolutely necessary* rules of thinking” – what pertains to *any* “use” of the understanding, regardless of what kinds of objects the thinking is about (A52/B76, emphasis added). This is so, even if it was recognized that we could undertake a study of some “particular [*besondere*] use” we make of our understanding and thinking, in which case we would be concerned with “the rules for correctly thinking about a *certain kind* of objects” (A52/B76, emphasis added). As Kant sees it, this latter kind of study would also yield a “logic,” but one that is associated with specifically “this or that science,” depending on the species or sub-domain of objects in question; more specifically, Kant takes this sort of logic to function as an “organon” for some specific science (A52/B76). (Strikingly, in his lectures, Kant calls mathematics just this sort



of organon [see DWL 24:696; JL 9:13].) It is, however, only the investigation of what pertains “universally” to all acts of thinking, regardless of their objects, that has primarily occupied what Kant calls “elementary logic” (A52/B76).<sup>11</sup>

At this point, however, Kant raises the possibility of an entirely new kind of investigation of thinking and the understanding. Whereas the traditional logic had either considered thinking as to its standing as an activity, in abstraction from all of the differences among the possible objects of thought, or considered the rules for thinking about this or that specific kind of object, Kant proposes an approach to thinking that somehow lies between these two. It will be like the traditional “universal” (or “general”) logic, in that it will not focus on the thinking of some particular kind of object, and so will not be restricted to the thinking involved in this or that science. Yet unlike the traditional logic, it will not limit itself to the consideration of thinking as mental *activity* that takes certain forms; rather, it will be more object-directed than this, insofar as it will instead investigate whether there are certain equally “elementary” representational *relations to objects* that are themselves universal across all “uses” of the understanding.

The representational “relation [*Beziehung*]” that thinking bears to its object is what Kant calls its “content [*Inhalt*]” (A58/B83). One way to put what has been distinctive of the traditional “universal” logic, therefore, is that it “abstracts ... from all *content*” of thinking, “i.e. from any relation of it to the object, and considers only ... the *form* of thinking in general” (A55/B79, emphasis added). The new science of understanding that Kant proposes is “a logic in which one did not abstract from all content,” but instead investigated whatever content might pertain to thinking considered per se – that is, what content would pertain to the “pure thinking of an object” (A55/B80), by means of which our understanding is “related to objects *a priori*” (A57/B82). Because this content would, in effect, come simply from thinking itself, it would be content that “cannot be ascribed to the objects” thought about (A55-56/B80), in the sense that

the content does not come to mind due to the objects themselves being given through our sensibility; the content would have “neither empirical nor aesthetic origin” (A57/B81), but would instead be “originally [*uranfänglich*] given *a priori* in ourselves” (A56/B80).

This new science of the *a priori* elementary contents that make possible the pure thinking of objects is what Kant here calls “**transcendental logic**” (A57/B81), in contrast to the approaches of the previous “pure general” logic, which he now characterizes as having provided a “merely formal logic” since it “abstracts from all content” and “concerns itself merely with the form of thinking ... in general” (A131/B170). Transcendental logic will still count as a pure *logic*, though, because it is still a science of the understanding per se: in it “we isolate the understanding” (from, for example, sensibility), in order to “elevate from our cognition merely the part of our thought” – namely, certain contents – “that has its origin solely in the understanding” (A62/B87).

The first task of this new transcendental logic is thus to demonstrate that there is such “pure” content present *a priori* in all acts of thinking whatsoever, simply in virtue of their being acts of thinking at all. Kant’s thesis is that there is, in fact, a set of *concepts* that have their “origin” in the understanding itself, and that these concepts correspond (more or less) to those which Aristotle (and subsequent metaphysicians) had identified as representing the most fundamental “categories” of objects (see B105). In order to show that and how such “elementary concepts” (A83/B109)<sup>12</sup> could have their origin in the understanding itself, Kant undertakes the ingenious strategy of showing how such (transcendental) elementary concepts can be seen as necessarily coordinate with the most elementary forms of thinking discovered by the traditional (formal) logic. This is what Kant calls the “**metaphysical deduction**” of the categories from the “universal logical functions of thinking” (B159).

A key step in Kant's metaphysical deduction of the pure concepts from the logical forms of thinking is Kant's argument that we first need to identify a *single* form of thinking (act of understanding) as that which in some sense "contains all the rest" (as he puts it in the *Prolegomena* [4:323]), in order to provide a "principle" that will explain why all of the forms of acts that logic had classified as cases of thinking should after all be brought under the single heading of acts of understanding in general (in its "broad designation"). This leads to one of Kant's most influential theses in the philosophy of logic – namely, that *judgment* is what plays this unifying role, with the forms of judging in particular being what can serve as the most elementary delimitation of the activity of understanding: "we can ... trace [*zurückführen*] all actions of the understanding back to judgments, so that the **understanding** in general can be represented as a **faculty for judging**" (A69/B94; see also Ak 2:59).<sup>13</sup> Kant thinks that concepts themselves, for example, can be understood as essentially "predicates of possible judgments" (A69/B94); in fact, Kant goes so far as to claim that the understanding "can make *no other use* of these concepts than that of judging by means of them" (A68/B93, emphasis added). Similarly, inferring itself is analyzed by Kant as an act of "judging mediately" (A330/B386), such that an inference can be understood to be "nothing but a judgment mediated by [a] subsumption" – i.e., a further judgment (A307/B364). Later Kant is even more emphatic: "the understanding shows its power [*Vermögen*] *solely* in judgments" (RP 20:271, emphasis added).

By taking judging as the basic principle for the classification of the various forms of *acts* of understanding in the traditional logic, Kant thinks he is also in possession of the basic principle for the derivation of fundamental *contents* of understanding within his new logic. This is because acts of judging themselves are acts of *representing objects* as being a certain way. As we saw above, a concept itself is the representation (consciousness) "common" to several representations. And as "predicates of possible judgments," concepts "are related to some representation of a still

undetermined object” (A69/B94). More specifically, they are related (by way of the logical *form* of judging) to the *representations* which would function as the subject-term in a judgment, but then are also thereby related (representationally) to the *object* represented by the subject. The very act of unifying or combining representations in the way that is distinctive of a form of judging is something that at the same time adds a further kind of representational relation (content) to the combination of the representations in question. Hence, not only is a judgment “the representation of a *relation* between two concepts” (or more generally: between representations), as “the logicians” of Kant’s day say it is, but it is more specifically a representation of an “*objective* unity of given representations” (B140-42) – or, as Kant puts it elsewhere, “the representation of a representation of *an object*” (emphasis added), whether these representations themselves which are unified in one consciousness are already concepts or are other sorts of representations, such as intuitions (A68/B93).

More generally, Kant takes a distinctive form of objective representation – a distinctive “relation to an object” – to arise in each “function of thinking” qua form of judging. It is here that Kant finds the systematic origin of the pure concepts or categories, as elementary “contents” that arise “in” the acts of understanding itself:

The same understanding, therefore, and indeed by means of the very same actions [*Handlungen*] through which it brings the logical *form* of a judgment ... also brings a transcendental *content* into its representations ... on account of which they are called pure concepts of the understanding that pertain to [*gehen auf*] objects *a priori*. (A79/B105; emphasis added)

In fact, Kant thinks there will “arise exactly as many pure concepts of the understanding, which pertain to [*gehen auf*] objects ... as there were logical functions of all possible judgments” (A79/B105; transl modified) – as is manifest by the parallels between the table of forms of

judging and the table of categories that Kant gives in §§9-10 of the first *Critique*. As he describes this process in the *Prolegomena* §39, to uncover the elementary contents of the new transcendental logic, Kant thereby needed only to reconsider the elementary forms (“functions”), which had long been uncovered by the traditional logic, as forms responsible not just for unifying representations into a relation, but as themselves “related to objects in general” in virtue of the representationality of the relevant form of thinking itself:

Here lay before me now, already finished though not yet free of defects, the work of the logicians, through which I was put in the position to present a complete table of pure functions of the understanding, which were however undetermined with respect to every object. ... I related these functions of judging to objects in general ... and there arose pure concepts of the understanding. (Pro 4:323-24)

For example, through unifying representations via the *categorical* form of judgment, which relates two representations formally as *subject* and *predicate*, there arises a representation of some object (represented by the subject-representation) as bearing some property (as represented by the predicate-representation). Kant takes this to show that thinking itself, by means of the “same act” that unifies the representations into this form of judgment, thereby represents its object according to the pure concept (category) of *substance*, as that in which the relevant property *inheres*.

Finally, Kant thinks transcendental logic can also show that this sort of elementary content arises not just in the forms of judging, to yield the pure concepts of understanding (categories), but also in the forms of *inferring* that distinguish the activity of *reason*, to yield what Kant calls “ideas”: “As in the case of the understanding, there is in the case of reason a merely formal, i.e., logical use, where reason abstracts from all content”; but then “a division of reason into a logical and a transcendental faculty occurs here”, too, as with the understanding; hence, “from the analogy with concepts of the understanding, we can expect both that the logical

concept will put in our hands the key to the transcendental one and that the table of functions of the former will give us the family tree of the concepts of reason” (A299/B355-56).<sup>14</sup> Because the “logical faculty” of reason is that of “drawing inferences mediately” (A299/B355), Kant concludes that, just as “the forms of judgments ... brought forth categories,” so too “we can expect that the form of inferences of reason [*Vernunftschlüsse*]...will contain the origin of special concepts *a priori* that we may call pure concepts of reason or **transcendental ideas**” (A321/B378, translation modified).<sup>15</sup>

#### **4. From the science of thinking to the critique of cognition from reason**

With his discovery of the possibility of transcendental logic, Kant thereby uncovers a distinctive angle of approach within logic to thinking in general – namely, an approach that looks at thinking neither in abstraction from *all* of its content, or all relation that it bears to objects, nor by focusing only on its relation to *some* objects, in this or that particular scientific domain. Rather, transcendental logic looks at the object-relatedness of thinking “in general,” the distinctive representational relation to objects that thinking itself “brings into” representations, thanks to the forms of its own activity.

Kant’s successors were quick to pick up on the novelty of both Kant’s thesis of the possibility of a universal material or contentful transcendental logic, and were also heavily influenced by his concomitant reconception of traditional logic as “merely formal” by comparison; both remained central features of the specifically “Kantian” tradition within the philosophy of logic in the nineteenth century.<sup>16</sup> Even so, for Kant himself, this recarving of the aspects of *thinking* (understanding “in general”), in order to better articulate the subdivisions within *logic*, was of a more immediate, instrumental use in his larger project of the first *Critique*

and the critical philosophy more generally – namely, the project of the *critique* of reason as a possible source of *a priori* “*cognition* [*Erkenntnis*]” of objects.

In Kant’s critical philosophy, for cognition of an object, something more than the mere *thinking* of an object is required – namely, the object must be “given” in a separate kind of representation. In the case of theoretical cognition (as opposed to practical cognition [see Bx]), objects can only be “given” in representations that Kant calls “intuitions [*Anschauungen*].” Intuitions cannot come about through the understanding itself, but come to mind instead from our “**sensibility** [*Sinnlichkeit*]”: as we saw above, “without sensibility no object would be given to us,” because “the understanding is not capable of intuiting anything” (A51/B75). Cognition of an object, therefore, cannot arise from mere thinking alone, but *only* when an object is *also* “given” to us in an intuition *and then* “**thought** in relation to that representation” – that is, in relation to the intuition of the object; “neither concepts without intuition corresponding to them in some way nor intuition without concepts can yield a cognition” (A50/B74). As Kant puts matters elsewhere:

To **think** of an object and to **cognize** an object are thus not the same. For two components belong to cognition: first, the concept, through which an object is thought at all (the category), and second, the intuition, through which it is given; for if an intuition corresponding to the concept could not be given at all, then it would be a thought as far as its form is concerned, but without any object, and by its means no cognition of anything at all would be possible, since, as far as I would know, nothing would be given nor could be given to which my thought could be applied. (B146)

As Kant notes in the B-edition preface, the domain of possible thoughts therefore ranges much wider than the domain of possible cognitions:

To **cognize** an object, it is required that I be able to prove its possibility (whether by the testimony of experience from its actuality or *a priori* through reason). But I can **think** whatever I like, as long as I do not contradict myself, i.e., as long as my concept is a possible thought, even if I cannot give any assurance whether or not there is a corresponding object somewhere within the sum total of all possibilities. (Bxxvi note)

As Kant goes on to say in this footnote, cognition can only be of objects of which there is a possible concept *and* which are *themselves* “really possible”; thought, by contrast, can be of any objects whatsoever, whether really possible or not, just so long as the *concept* of such an object is “logically possible” (Bxxvi note).<sup>17</sup>

For Kant’s overarching purposes of the “critique” of pure reason, it is crucial that Kant means for reason to be considered, not as to its (merely formal-logical) standing as the capacity for a certain kind of *thinking* (namely inferring), nor even as to its standing as the source of certain *concepts* (the pure transcendental-logical concepts [ideas] of reason), but rather as “the faculty that provides the principles [*Prinzipien*] of cognition *a priori*,” with “*pure reason*” as “that which contains the principles for *cognizing* something *absolutely a priori*” (A11/B24, emphasis added). Crucially, then, for this sort of investigation, what we have seen described above as the first task of transcendental logic – namely, the systematic identification of certain pure contents of thinking that have their origin entirely in the understanding in general (including reason) and arise wholly out of acts of thinking, or what Kant calls the “metaphysical deduction” of pure concepts – can function only as a necessary but insufficient step for the critique of the possibility that reason is a source of *a priori* cognition.

This sort of analysis of purely intellectual content is necessary because, as we have just seen, all *acts* of cognizing include acts of thinking, in addition to intuiting. Consequently, all *content* of cognition includes transcendental-logical content (“the category,” in addition to the content



supplied from intuition). For this reason, Kant takes the presentation of the system of the pure concepts constitutive of pure *a priori thinking* to provide the systematic framework for the analysis of the possibility of pure *a priori cognition*.

Yet as long as the pure content in question remains purely intellectual (that is, having its source purely in acts of the understanding), this framework of pure concepts can only yield an analysis of pure thinking of objects and cannot construct (on its own) any pure cognition of objects. For the latter, we would need to demonstrate that there is or can be intuitions “corresponding” to these pure concepts, so as to be able to “give” the objects of these concepts to mind. But then, just as thinking by itself (whether conceiving, judging, inferring, or systematically ordering) is not sufficient for cognizing, the estimation of the possibility of pure cognition from the understanding in general, and reason in particular, cannot come from merely *logical* analysis, understood as *either* formal-logical analysis of the forms of thinking *or* the *transcendental*-logical analysis of pure concepts (contents) of thinking considered per se, as they “arise” in acts of understanding alone. Something more, therefore, is required for the critique of reason as a source of pure cognition – namely, information about our sensibility and its intuitions, and an estimation of the possibility of establishing a priori a relation between the contents (ideas) of reason and those of sensibility.

As a preliminary to this estimation concerning reason, the *Critique* first synthesizes the findings of the Transcendental Logic’s metaphysical deduction of the pure concepts of *understanding* with the findings of the Transcendental Aesthetic. The resulting “transcendental” deduction provides Kant with a basic model for showing “how subjective conditions of *thinking* should have objective validity, i.e., yield conditions of the possibility of all *cognition* of objects” (A89-90/B122, emphasis added).<sup>18</sup> While we cannot hope to go into the details of this deduction here,<sup>19</sup> what is worth noting is that, in the B-edition especially, we can see Kant beginning with

an analysis of the conditions for *thinking* – more specifically: the conditions for “accompanying” certain representations with the “I think,” or becoming “conscious” of these representations in a “unity” (see B-deduction §§15-20 [B129-43]) – and then moving to the conditions for *cognizing objects* through the unified consciousness of such representations (see B-deduction §§21-26 [B144-65]). Kant himself draws attention to this shift in focus, from the pure concepts as conditions of *thinking* to their function as conditions of *cognizing*, both at the key transitional sections (§§21-22) and then again at the outset of the concluding summary of the deduction (§27).<sup>20</sup>

After demonstrating, in general, *that* the pure contents of *thinking* supplied by our understanding are also conditions that make *cognizing* really possible, Kant then turns to the task of specifying *how* thinking can have a universal and necessary relation to all possible objects of intuition. This takes two stages: first, in the Schematism, Kant identifies “schemata” or “determinations” of sensible patterns that can be found in every possible sensible intuition and that are thereby fit to stand as “mediating” correlates between the pure *concept’s* purely intellectual content and the indeterminate, infinite manifold that is given in *intuition* itself (see A138-41/B177-80). Because Kant thinks that *time* is both an *a priori* sensible content and also what provides the form to the “one totality in which *all* of our representations are contained” (namely, our own “inner sense” [A155/B194]), the requisite schemata can be given in terms of temporal patterns (“time-determinations”) that would correlate with the pure concepts. For example, the schema or determination in sensible intuition for the pure concept of substance is “the representation of the real as a substratum of empirical time-determination in general, which therefore endures while everything else changes” (A144/B183). Second, Kant provides judgments or “basic propositions [*Grundsätze*, principles in this sense]” which “contain in themselves the grounds [*Gründe*] of other judgments” concerning objects – namely, “all cognition of its object,” for example, all cognition of substance (A148-49/B188). In the case of substance,

this basic proposition is: “In all change of appearances substance persists, and its quantum is neither increased nor diminished in nature” (B224).<sup>21</sup>

While this synthesis in relation to the pure concepts (categories) our *understanding* gives an important model for how pure thinking could be transformed into a priori cognition, it is not yet sufficient for a critique of *reason* in particular, as to how its own pure thinking might serve as a possible source for a priori cognition. For this, Kant needs to determine if and how the pure concepts (ideas) of reason (concepts of the immortal soul, the world-whole, and God) can also be shown a priori to have the requisite relation to the objects of intuition. Kant’s main conclusion here is famously negative: “no *objective deduction* of these transcendental ideas is really possible, such as we could provide for the categories” (A336/B393; see also A663/B691). Nevertheless, Kant thinks that the “principles [*Grundsätze*]” which reason arrives at, on the basis of attempting to relate these ideas to intuition, can in fact be shown to have “objective but indeterminate validity”, insofar as they “serve as a rule of possible experience”, as a “heuristic principle” for the “elaborating [*Bearbeitung*]” of experience (A663/B691), so as “to preserve the greatest systematic unity in the empirical use of our reason” (A670/B698). Reason is therefore shown to be a source of “necessary maxims” which serve “not as *constitutive* principles for the extension of our cognition to more objects than experience can give, but as *regulative* principles for the systematic unity of the manifold of empirical cognition in general” (A671/B699). That is, this “systematic unity or the unity of reason” serves as a “*logical* principle” which is “subjectively and logically necessary, as method” for the application of reason to the objects of intuition (as cognized in experience), rather than a “*transcendental* principle of reason” which would somehow demonstrate that things “are in themselves determined to systematic unity” (A647-8/ B675-6).

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Now, for the broader critique of the possibility of *a priori* cognition, such an inclusion of further material beyond what can “arise” in the understanding or reason alone is surely necessary, given Kant’s understanding of the conditions of cognition itself. What is less clear, however, is whether these steps beyond the metaphysical deduction are themselves ultimately best thought of as investigations that lie within *logic* strictly speaking, rather than in some other kind of discipline, such as critique. For it would seem that, in each of these further steps (the Transcendental Deduction, the Schematism, the Principles, the Dialectic), Kant is clearly drawing upon material from the Aesthetic, concerning sensibility, and so is going beyond the findings of the science of understanding per se, studied in isolation from all other capacities. (This is so, even if all of these sections (along with the Dialectic as well) are of course officially contained under the heading of Transcendental Logic in the first *Critique*.)

In any case, this line of questioning also leads us quite close to another topic associated with Kant’s philosophy of logic, with respect to which the significance of the thinking/cognizing distinction promises to help clarify matters. This is the question of how best to understand the significance of logic (formal and transcendental) for Kant’s distinction between *analytic and synthetic judgments*. The first thing to note here is that the difference between analytic and synthetic judgments is a distinction based on the content of judgments and not their form (in Kant’s sense):

[J]udgments may have any origin whatsoever, or be constituted in whatever manner *according to their logical form*, and yet there is nonetheless a distinction between them *according to their content*, by dint of which they are either merely *explicative* and add nothing to the content of the cognition, or *ampliative* and augment the given cognition; the first may be called *analytic* judgments, the second *synthetic*. (Pro 4:266, initial emphases added)

This, however, implies that traditional (pure general, “merely formal”) logic does not know of this difference, because it abstracts from the content of thinking (even that of pure concepts) “in

general” (see A79/B105; compare A154/B193). Hence, the distinction between analytic and synthetic judgments is actually not one that can be made *within* formal logic, but only in transcendental logic (see OD 8:242).

This should be kept in mind when considering Kant’s discussion of the relation between analytic judgments and the “principle [*Satz*]” of contradiction. As Kant sees it, this principle governs *all* judgments “in general,” whether mere thoughts or cognitions, whether synthetic or analytic, and it “is valid irrespective of their content [*unangesehen ihres Inhalt gilt*],” and “says that contradiction entirely annihilates and cancels them” (A151/B190, translation modified; see also OD 8:195). When understood in this way, the principle “belongs merely to logic,” by which he means the traditional (“merely formal”) logic; yet as Kant goes on to note, this principle can also be put to a more specific use *outside* of (formal) logic – namely, a “positive use,” to “cognize sufficiently” the truth of specifically analytic judgments (A151/B190). Indeed, Kant calls this principle the *sufficient* “**principle [*Prinzipium*] of all analytic cognition**” (A151/B190). With this, however, the focus has moved beyond the merely *necessary* conditions for *thinking* in general, and on to the conditions for a specific sort of *cognition* in particular (A151/B190-91).

Finally, though it is not uncommon to find claims to the effect that, for Kant, logic itself (presumably formal logic) “is analytic,” whereas for example, mathematics and metaphysics “are synthetic,”<sup>22</sup> it is not exactly clear what this could mean. As we have already seen, if it states truths about anything, formal logic states truths about thinking itself, its forms, and the laws that govern the activity of thinking. (As Kant’s lectures have it, logic is the “*self-cognition* of the understanding” [JL 9:14, emphasis added].) Yet there does not seem to be any reason to think that these judgments (about the understanding, about thinking) will (let alone must) have contents that take the form of an analytic judgment in particular, such that with the content of their

predicate concepts is “already thought in” the content of their subject concepts (B11). Nor (at least to my knowledge) does Kant himself ever state explicitly that the truths contained within logic are analytic judgments.

## 5. The role of logic across Kant’s philosophical architectonic

What has come to light in the foregoing is the following basic threefold progression in how logic functions within the broader critical philosophy:

- 1) first, there is *traditional* logic, which provides the specification of the basic *forms* of thinking, in abstraction from all of the content of thinking (its relation to objects);
- 2) second, there is *transcendental* logic, which provides the specification of those basic pure *contents* (concepts, categories, ideas) of thinking which arise from acts of the understanding (and reason) itself, in abstraction from its relation to sensibility, that is, purely intellectual content (so: the pure concepts as “unschematized” [see OD 8:223-24; RP 20:272]); and
- 3) third, there is the *critical* investigation of the understanding in general, and reason in particular, as a capacity not just for thinking but for *cognizing* objects *a priori*, which (given Kant’s account of cognition) necessarily brings into consideration information that lies outside of the understanding itself, information pertaining to sensibility and its representations (intuitions, their forms), as well as the possibility of representations (like schemata) that mediate between thinking and intuiting.

Concerning 1): We have already touched upon the fact that, so far as the traditional “merely formal” logic is concerned, the acts of understanding under investigation range over much more than acts of cognizing. As Kant describes it in §12 of the B-deduction, what is required to count as an act of understanding is simply what he there calls a kind of “**qualitative unity**,” or “that under which the unity of the grasping-together [*Zusammenfassung*] of the

manifold ... is thought,” a unity which is present not just in a cognition but is also manifest in “the unity of the theme in a play, a speech, or a fable” (B114, translation modified). Kant here also calls the unity in question simply the “**unity** of the concept”, which recalls our earlier discussion of thinking itself (and conceiving) as occurring wherever there is a unifying of representations together “in one consciousness”.

What we should now also note, in relation to 2), is that something similar can be said even of Kant’s new transcendental logic, at least in its strict sense, since Kant also allows for our understanding “in general” to be used in ways distinct from theoretical cognition altogether. Perhaps most importantly, the (“unschematized”) pure concepts, and in particular, the pure concepts (ideas) of reason, can be used to form *thoughts* (judgments) about objects of which we can have no *cognition*, but about which Kant thinks our reason gives us grounds to hold certain judgments to be true. Perhaps the primary instances of this use of the pure concepts is found in the formation of the theoretical judgments that God exists and that our own soul is immortal. For both of these judgments, Kant thinks that we have rational (if practical) grounds to hold them to be true, even while both of the relevant objects are such as to lie beyond the sphere of objects of possible (theoretical) cognition (see CPrR 5:120-21; CJ 5:467-68).

The same, it seems, must be said about certain more speculative judgments articulated in the course of the first *Critique* itself, concerning the existence of “things in themselves,” “noumena,” the “grounds” of appearances, and so on. It has been common (since the time of Kant’s first readers) to criticize Kant for a kind of inconsistency here, insofar as Kant at once rejects the idea that we can have *cognition* of any substances or causes outside of the possibility of an intuition of them, while also seeming to insist on (or at least *assume*) the truth of judgments involving pure concepts like that of substance and or cause but which are about just such non-sensible objects – for example, judgments concerning some kind of causal interaction between the

things that serve as the grounds of appearances and our own sensibility.<sup>23</sup> Even so, Kant himself is quite explicit that he is only assuming that we can *think* of such objects (and can also “assume” that they exist), not that we can *cognize* them. Compare what Kant writes in the B-preface about the objects that are responsible for appearances: “even if we cannot **cognize** these same objects as things in themselves, we at least must be able to **think** them as things in themselves. For otherwise there would follow the absurd proposition that there is an appearance without anything that appears” (Bxxvi; see also B312).<sup>24</sup>

A further, final, use of the (again “unschematized”) pure concepts worth noting is one that occurs outside of theoretical cognizing in particular, one that makes possible specifically *practical* cognition. This sort of cognition, too, includes a specific kind of “relat[ion] to its object” (that is, content) – namely, that of “**making** [*machen*] the object **actual**” (Bix-x). The question thus arises as to whether practical cognition, like theoretical cognition, involves certain purely intellectual contents. In the second *Critique*, Kant attempts to show not just that there is such pure content (practical “categories”) but that the “categories” involved in practical cognition are in fact “without exception, *modi* of a single category [of understanding], namely that of causality”; in other words, whatever *further* sort of content practical cognition will include, at the very least it will include *thinkable* content: “the determinations of a practical reason can take place ... conformably with the categories of the understanding” (CPrR 5:65). To be sure, as in the theoretical case, it is only with *some* further “determination” of the purely intellectual content of the pure concepts (here: an application to *desires*) that our understanding in general (as reason) is finally able to practically *cognize* its objects – so that these pure concepts “become [practical] cognitions” of objects – rather than just “think” of them (CPrR 5:66).<sup>26</sup> Yet it is only because the original pure concepts of understanding themselves do not contain “in themselves” any specifically sensible-intuitive (spatial, temporal) determinations that they can also find application



to sensible-inclination determinations as well, and thereby figure in the contents of both theoretical and practical cognitions. What is more, as the Table in the second *Critique* makes clear (CPrR 5:66), here again, Kant takes the transcendental-logical categories to provide a key elementary framework for the whole system of practical reason.<sup>27</sup>

Now, the purely intellectual standing of the subject matter of logic is also what enables Kant to use the framework of the traditional-logical forms (“functions”) and the transcendental-logical categories even in his investigation in the third *Critique* of the “reflective” use of understanding in the aesthetic exercise of the power of judgment.<sup>28</sup> In fact, given his conception of the generality of logic, Kant is committed to saying that, in *any* domain where our activity of thinking and understanding can get a grip (wherever there is intelligibility), this activity will take the *forms* disclosed by traditional logic, and the domain will be represented (in part) through the pure intellectual *content* disclosed by transcendental logic (as the investigation of our understanding “in isolation”). As we noted above, the former are universally and necessarily constitutive of what it is to be an exercise of the understanding in general in the first place, if any “use” of the understanding is to “take place” at all (A52/B76).<sup>29</sup> The latter articulate what it is to be “an object in general,” regardless of what specific kind, regardless even of whether (really) possible or not, “whether it is something or nothing” (A290/B346), whether it is already given or to be “made actual”. This sort of generality allows logic itself – formal and transcendental, taken together – to make a crucial and quite significant contribution to the underlying unity and systematicity of Kant’s critical philosophy as a whole.<sup>30</sup>

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**Notes**

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1. The book that appeared in 1800 under the title of *Immanuel Kants Logik* was not authored by Kant himself, but was written up by one of his students, G. B. Jäsche, on the basis of Kant's lecture notes, and there is no evidence that Kant himself ever reviewed Jäsche's manuscript at any stage of its composition. See Terry Boswell, "On the Textual Authenticity of Kant's *Logic*," *History and Philosophy of Logic* 9, no. 2 (1988): 193-203; and J. Michael Young, "Translator's Introduction," in *Lectures on Logic* by Immanuel Kant (Cambridge: Cambridge University Press, 1992), xv-xxxii.

2. For the significance of Kant's views on logic for his early writings, see Peter Yong, "God, Totality and Possibility in Kant's *Only Possible Argument*," *Kantian Review* 19, no. 1 (March 2014): 27-51; and Nicholas F. Stang, *Kant's Modal Metaphysics* (Oxford: Oxford University Press, 2016). For the significance of Kant's changing views on logic for the emergence of the critical philosophy, see R. Lanier Anderson, *The Poverty of Conceptual Truth: Kant's Analytic/Synthetic Distinction and the Limits of Metaphysics* (Oxford: Oxford University Press, 2015). For the centrality of Kant's conception of logic within the critical philosophy itself compare Michael Friedman, *Kant and the Exact Sciences* (Cambridge: Harvard University Press, 1992); Béatrice Longuenesse, *Kant and the Capacity to Judge: Sensibility and Discursivity in the Transcendental Analytic of the "Critique of Pure Reason"*, trans. Charles T. Wolfe (Princeton: Princeton University Press, 1998); John MacFarlane, "Frege, Kant, and the Logic in Logicism," *Philosophical Review* 111, no. 1 (Jan. 2002): 25-65; Clinton Tolley, "Kant's Conception of Logic," PhD diss., University of Chicago, 2007; Huaping Lu-Adler, "Kant on Proving Aristotle's Logic as Complete," *Kantian Review* 21, no. 1 (March 2016): 1-26; and Anderson, *Poverty of Conceptual Truth*.

3. Compare Tolley, "Kant's Conception of Logic," 30. See also chapter 1 of this volume.

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4. It is worth noting that “the doctrine of reason [*Vernunftlehre*]” was a common title for logic at the time. It was, in fact, the title of the textbook by Georg Meier that Kant used for his own lectures on logic.

5. As Kant puts it at the outset of the *Transcendental Logic* and elsewhere, logic is “the science of the rules of understanding in general” (A52/B76). Very similar definitions can be found in Kant’s lectures and notes (*Reflexionen*) on logic. Compare, for instance, the Latin rendering given in the 1790s *Vienna Logic*: “*Definition. Logica est scientia regularum universalium usus intellectus*” (VL 24:792; see also Ak 16:46 [R1628]); see also the earlier (1773-75) *Reflexion* 1603: “Logic is an *a priori* science of the [universal] pure laws of the understanding and reason in general” (NF 16:33).

6. This is so, even if Kant often uses the term “understanding in general” in what he calls its “broad designation,” which encompasses all three of these “powers of the mind [*Gemütkräfte*]” (A131/B169; see also An 7:196-97). This broad designation also carries over for the use of the term “thinking” (see LM 29:888-89).

7. This subordination of logic to psychology is made especially vivid in the classification that Alexander Baumgarten gives in his *Acroasis logica* §37. See Clinton Tolley, “The Relation between Ontology and Logic in Kant,” in *International Yearbook for German Idealism*, ed. Dina Emundts and Sally Sedgwick (Berlin: de Gruyter, forthcoming).

8. Compare Warren Goldfarb, “Frege’s Conception of Logic,” in *Future Pasts: The Analytic Tradition in Twentieth-Century Philosophy*, ed. Juliet Floyd and Sanford Shieh (Oxford: Oxford University Press, 2001), 25-41; for discussion, see MacFarlane, “Frege, Kant, and the Logic in Logicism.”

9. Again compare Tolley, “Relation between Ontology and Logic in Kant.” See also Hilary Putnam, “Rethinking Mathematical Necessity”, in *Words & Life*. Ed., J. Conant (Cambridge:

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Harvard, 1994) 245-263. Note as well that, with respect to the traditional logic, Kant also is at some distance from those, such as Bolzano and Frege, who take logic to be concerned first and foremost with the *contents* of thinking (for Bolzano: “propositions [*Sätze*] *an sich*”; for Frege, “thoughts [*Gedanken*]”) rather than the acts of thinking or their ultimate objects.

10. For further references to pre-Kantian specifications of logic as an “art,” see Tolley, “Kant’s Conception of Logic,” 52-70.

11. By introducing such divisions with logic, Kant is picking up (and partially reorganizing) various threads from his predecessors in early modern philosophy of logic; compare Tolley, “Kant’s Conception of Logic,” 25-29.

12. Kant also calls them “basic [*Grund-*],” “root [*Stamm-*],” “original [*ursprüngliche*],” “primitive” concepts (B107-8).

13. For helpful discussion on the points in this section, see Longuenesse, *Kant and the Capacity to Judge*.

<sup>14</sup> Interestingly, there do not seem to be parallel pure contents (concepts) that arise out of forms of acts of the power of judgment, though it is of course this power which is responsible for generating pure judgments (“principles [*Grundsätze*]”) concerning the application of concepts to objects; see below Part 4; see also A159/B198.

15. In fact, the ideas arise not directly from the relevant logical forms of unifying representations (concepts) in individual inferences, but only from the further acts of synthesizing all inferences of a specific form in relation to whatever would function as the “unconditioned” that contains the “totality” of the grounds or conditions for whatever is represented as being conditioned in any given individual inference (see A322-23/B379-80). In this respect, these contents are perhaps more closely related to the fourth kind of thinking noted above – namely, that of systematically

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ordering into a scientific unity. (Compare the discussion below in Part 4.) For our purposes, however, we can bracket the complications introduced into the parallel metaphysical deduction of the ideas by this further inclusion of a reference to the whole or “totality” of conditions and the unconditioned. For more on this, see Eric Watkins, “Kant on the Unconditioned”, manuscript.

16. For a recounting of some of this history, see Jeremy Heis, “Attempts to Rethink Logic,” in *The Cambridge History of Philosophy in the 19th Century*, ed. Allen W. Wood and Songsuk Susan Hahn (Cambridge: Cambridge University Press, 2012), 95-132.

17. For more on the distinction between thinking and cognizing, and the conditions for cognition, see Clinton Tolley, “The Generality of Kant’s Transcendental Logic,” *Journal of the History of Philosophy* 50, no. 3 (July 2012): 417-46; and Eric Watkins and Marcus Willaschek, “Kant’s Account of Cognition,” *Journal of the History of Philosophy*, forthcoming.

18. Here we can see, in Kant’s reconception of logic, a twofold response to Hume’s worries concerning what Kant is identifying as the pure concepts. On the one hand, with the metaphysical deduction of such concepts out of the traditional-logical forms of thinking, Kant means to demonstrate, against Hume, that concepts like that of substance-inherence and cause-effect in fact have a “purely logical” or intellectual origin, rather than an empirical or aesthetic one, or an origin as “a bastard of the imagination”; that is, Kant means to demonstrate, to the contrary, that our understanding (and reason) on its own – independently of experience, imagination, or sensibility – *does* have “the capacity to *think* such connections in general” (Pro 4:257-58, translation modified). On the other hand, Kant nevertheless agrees with Hume’s related worry that the mere fact of our possession of such concepts does not on its own demonstrate either the *existence* of any actual objects that correspond to such concepts or that we have the capacity to *cognize* these objects. That is, Kant accepts that, beyond the first response to

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Hume's challenge concerning the pure concepts (the metaphysical deduction), a second response is necessary, concerning the question of the role of such concepts in our claims to cognition of objects: with what right (*quid juris*) do we take there to *be* objects corresponding to these concepts, and with what right do we claim to be able to *cognize* these objects? And while the first response to Hume can be given within logic alone, the second requires appeal to the Aesthetic.

<sup>19</sup> See Chapter XXXX in this volume.

20. This arguably provides the proper template for understanding the difference between the two "steps" of the B-deduction that Dieter Henrich brought into focus, though Henrich himself does not characterize the significance of the transition in the way I am doing here (i.e., according to the distinction between thinking and cognizing). See Dieter Henrich, "The Proof-Structure of Kant's Transcendental Deduction," *Review of Metaphysics* 22, no. 4 (Jun. 1969): 640-59.

<sup>21</sup> For more on the Schematism and the Principles, see Chapter XXXX.

22. Anderson, *Poverty of Conceptual Truth*, 103; also 31.

23. For a discussion of this sort of criticism (with references to various historical instances of it), along with a defense of Kant against this sort of charge, see especially Karl Ameriks, *Interpreting Kant's Critiques* (Oxford: Clarendon, 2003).

24. Compare as well Kant's remarks at the end of the *Prolegomena* about reason's need to "assume" and "think" of the existence of certain intelligible beings, in order to make sense of appearances (Pro 4:355).

26. For more on the categories of freedom, compare Susanne Bobzien, "Die Kategorien der Freiheit bei Kant," in *Kant. Analysen-Probleme-Kritik*, ed. Hariolf Oberer and Gerhard Seel (Würzburg: Königshausen & Neumann, 1988), 193-220; and Ralf M. Bader, "Kant and the Categories of Freedom," *British Journal for the History of Philosophy* 17, no. 4 (Sept. 2009): 799-820.

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27. Compare the remarks from Kant's lectures on logic, where it is explicitly allowed that "logic can have to do with practical cognition" as well as "speculative cognition," since "nothing belongs to logic except the logical form of all cognitions, i.e., the form of thought, without regard to the content" and "practical cognition is distinct from speculative cognition as to content" (VL 24:903).
28. Concerning the judgments of the beautiful, compare §1: "In seeking the moments to which this power of judgment attends in its reflection, I have been guided by the logical functions for judging (for a relation to the understanding is always contained even in the judgment of taste)" (CJ 5:203n). Concerning judgments of the sublime, compare §24 (CJ 5:247), in which Kant deploys the distinction between mathematical and dynamical categories from the first *Critique* (see §11 [B109-13]). (The connections between either the logical forms or categories and the dimensions of teleological judgment are much less explicit.)
29. As Kant anticipates in §11 of the B-edition, the table of categories not only "completely contains all the elementary concepts of the understanding," but it also contains "even the form of a system of them in the human understanding" (B109-10).
30. I would like to thank Eric Watkins and Samantha Matherne for helpful discussion of earlier versions of this material.