

CATEGORIES AND LOGICAL FORMS IN KANT'S METAPHYSICAL DEDUCTION

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Abstract

Compared with the other sections of Kant's Critique of Pure Reason, the Metaphysical Deduction is among the most obscure and it seems that the section has not received as much critical and interpretive attention as its cousin, the Transcendental Deduction. This is rather surprising because it is at the Metaphysical Deduction that Kant crucial in establishing his program of justifying empirical knowledge in the face of radical skepticism. It is argued in this paper that the connection between the two types of logic is as follows: the logical forms, which belong to formal logic, are the ratio cognoscendi of the Pure Concepts of Understanding, since they provide the key to knowing the latter. On the other hand, the categories are the ratio essendi of the Logical forms, for it is the former that are the condition of the possibility of the latter.

The role of the Metaphysical Deduction in Kant's *Critique of Pure Reason* is to show the number and identity of the pure concepts of the understanding. Kant arrives at this conclusion by means of a reflection on the forms of logical judgments, which are argued to correspond in some way to the pure concepts of the understanding.

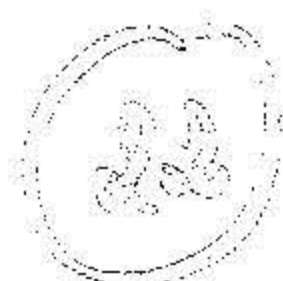
How is the relation between the logical

forms and the pure concepts of understanding possible? In other words, how is it possible that purely abstract logical forms, which are in effect nothing but syntactic means by which one can classify propositions, are closely related to the categories, which are, as Kant tries to show, constitutive of the phenomenal world of science? Kant's text on this matter is known to be obscure.

I would like to propose that the relation between the logical forms and the categories is two-way. Taking the relation between freedom and moral law in Kant's practical philosophy as a clue, I would like to point out that the logical forms are the *ratio cognoscendi* of the categories, since they provide the key to knowing the categories. On the other hand, the categories are the *ratio essendi* of the logical forms, for it is the former that are the condition of the possibility of the latter. Kantian commentators usually mention the relation from the logical forms to the categories only, but they ignore the essential role of transcendental and general logics, which is explicitly discussed in the passage from A50/B76 to A64/B88.² The

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² References to the *Critique* are from Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (New York: St. Martin's Press, 1929). I follow the usual practice of referring to the first and second edition of the *Critique* as A



distinction will be the basis of my interpretation here.

This paper is divided into five parts. The first part discusses the distinction between the two logics. The second part will concern my argument for the two-way relation in detail. The third part of the paper concerns textual evidence in Kant of the two *rationes* as well as relevant passages where it can be seen that Kant regards the relation as reciprocal, each in a different way. In the fourth part, I will show how my account differs from the main trend of leading commentators on the Metaphysical Deduction that seeks to show that the logical forms and the categories are to be regarded as not different from each other in essential aspects, but only in that the categories are the logical forms that have been provided, or are considered in relation to, the "transcendental content," which they interpret as some kind of semantic content--what the pure logical forms mean or refer to. Finally, the fifth part of this paper will provide conclusion.

I

According to Kant, general logic is the study of derivations among the forms of proposition with the aim of preserving consistency. It is only the study of the forms of judgments, which are subtracted from any particular content. It "considers only the logical form in the relation of any knowledge; that is, it treats of the form of thought in general" (A55/B79). On the other hand, transcendental logic is concerned with what Kant calls "empirical thought of objects"--that is, thought in so

far as it is affected by empirical intuitions and hence by the synthesis of the manifold of space and time.

Kant claims that transcendental logic "treat[s] only of the origin of the modes in which we know objects, in so far as that origin cannot be attributed to the objects" (A55/B80). In other words, the subject matter of transcendental logic is the search for and study of how knowledge of objects is possible--the "referring back" to the origin of the mode in which we know object.³ This referring back obviously does

³ In "Kant's Notion of a Deduction and the Methodological Background of the First Critique" (in *Kant's Transcendental Deductions* ed. Eckart Förster, Stanford: Stanford University Press, 1989: 29-46), Dieter Henrich argues that the use of the term "deduction" in the Critiques has some special affinity to the juridical usage of the term in and around Kant's time. In legal circles a deduction was required when there was a challenge to a rightful possession of title, and the purpose of the deduction is to show that a title belongs rightfully to the owner by accounting for its origin (30-34), and "[t]he process through which a possession or a usage is accounted for by explaining its origin, such that the rightfulness of the possession or the usage become apparent, defines the deduction" (35). Henrich argues, in short, that the tracing back to the origin of a claim aiming at confirming the right to that claim constitutes its deduction, and that Kant appropriated this use from jurisprudence to apply to his critical project such that the Deductions in the first *Critique* is a justification of the rightful possession and usage of the categories in constituting our experience. This tracing, however, is not a mere empirical act of accounting for the causal chain of origin of the claim--that would not in itself establish a rightful or legitimate possession or usage. It only concerns itself with the question of fact (*quid facti*) and not the question of right (*quid juris*) (A84/B117). The tracing intended to

and B, respectively, and the number following each letter refers to the page number in each respective edition.

not proceed a posteriori; hence the process is analogous to the role of a priori intuitions in constituting the forms that are presupposed by an act of the mind relating

answer the question of right, therefore, has to search for something that would justify the claim in question, and for Kant that is a search for the condition of possibility of the claim. So, on the issue of transcendental and general logic, it is the task of the former to trace the origin--not merely causal one, which would be merely physiological or psychological--but a search for the origin that serves to justify the legitimate possession of claims in general logic itself.

However, this search for the "origin" of the claims of general logic by no means implies that general or formal logic stands in need of any account of justification, as if by itself it did not have a self-evident claim to certainty. It is clear that Kant regarded logic as actual and certain. But the transcendental account that he proposed in the first *Critique* does not aim to provide a justificational account in order to show that they are indeed worthy of the title of knowledge. On the contrary, since they are actual, they are paradigms of knowledge, if there are any. The problem for him, as is well known, is to find out *how* such species of knowledge are possible at all. There is no question regarding the possibility of such species, for they are actual. Hence Kant's opinion that "... logic has from the earliest times proceeded upon this sure path is evidenced by the fact that since Aristotle it has not needed to retrace a single step" and that logic is "a closed and complete doctrine" (Bviii) do not in any way require that an account of *how* logic itself is possible because logic is a closed, consistent, and self-evident system. Cf. Weldon, T. D. Weldon, *Kant's Critique of Pure Reason* (Oxford: Clarendon Press, 1958): 146. For a recent article on Kant's use of legal metaphor, see Ian Proops, "Kant's Legal Metaphor and the Nature of a Deduction," *Journal of the History of Philosophy* 41.2(2003): 209-229.

immediately to singular objects. Since transcendental logic is concerned with such an a priori origin, it could not be limited only to the analytical study of pure relations between judgmental forms and of abstracting formal logical rules from such relations. In a nutshell, then, the difference between the two logics according to Kant is as follows: Formal logic treats of formal, syntactical relations between judgments with no regard for their empirical, mathematical or even transcendental content. Its province does not include how such judgments come about in the first place. Since judgmental forms are abstractions from ordinary employments of concepts in human attempts to communicate and to gain knowledge of the phenomena, formal logic is not specifically concerned with the problem of how understanding is successful by means of either empirical, logical, or mathematical judgments. The investigation of the condition of possibility of such employments of concepts and of understanding--the "tracing back to the origin" of the whole process of abstraction is the domain of transcendental logic.⁴

⁴ In the Jäsche edition of *Logic*, Kant states that general logic differs from transcendental logic in that in the latter "the object itself is presented as an object of mere understanding, whereas general logic concerns all objects generatim" (Immanuel Kant, *Logic*, trans. Robert S. Hartman and Wolfgang Schwarz, New York: Dover, 1974: 18). Thus, the role of the understanding is necessarily involved in transcendental logic. Briefly stated, general logic is concerned with the pure and abstract forms of thought; transcendental logic, on the other hand, is concerned instead with how such forms of thought treated in general logic are possible at all.

According to Kant,

Such a science, which should determine the origin, the scope, and the objective validity of such knowledge, would have to be called transcendental logic, because, unlike general logic, which as to deal with both empirical and pure knowledge of reason, it concerns itself with the laws of understanding and of reason in so far as they related a priori to objects (A57/B82-83).

It is clear that transcendental logic is not a treatment of purely formal and abstract relations among propositions. Kant mentions "the origin, the scope, and the objective validity" of knowledge claims, so transcendental logic is limited to the investigation of how such knowledge claims are possible. That they are possible is taken by Kant as obvious and self-evident, as his discussions of such disciplines as geometry and science attest. The task of transcendental logic then forms the main core of the realization of Kant's overall purpose in the *Critique*, that of showing how synthetic judgments are possible a priori. Transcendental logic cannot be merely another species of formal, logical or conceptual investigation for the simple reason that such enterprise is exhausted by general logic. On the other hand, transcendental logic cannot be a kind of empirical investigation either; in fact, both the formal and empirical claims to knowledge, including, most importantly, the synthetic a priori, presuppose⁵ transcendental logic in the first place.

⁵ Gary Hatfield, in *The Natural and the Normative: Theories of Spatial Perception from Kant to Helmholtz* (Cambridge, MA: MIT Press, 1990), argues that Kant's transcendental psychology differs from naturalistic, empirical

II

This distinction between formal and transcendental logic is the key to understanding the bridge between the table of logical forms and the corresponding table of categories. Looking back at the core text of the Metaphysical Deduction, one finds that the passage from A76/B102 to A80/B106 is very obscure, and it is not surprising to see that many diverging interpretations of it have been given⁶.

psychology, such as that of Hume, in that the former treats of the normative aspect of what must be the case for the knowing mind to have objective judgments--judgments that are entitled the name of knowledge. Naturalistic psychology, on the other hand, only describes the actual sequences of representations without investigation into such grounds of possibility (86). Thus his account of transcendental psychology accords with my account of transcendental logic. In this paper I argue that transcendental logic is the condition without which the claims of general logic cannot be justifiably grounded. Transcendental psychology puts an epistemic constraint upon empirical psychology, and, likewise, transcendental logic puts the same sort of constraint upon general, formal logic. In each case the task of the transcendental is to provide a norm for either psychology or logic--indeed for any type of knowledge claims that justifies those claims. According to Hatfield, "... any empirical description of the mind must accord with transcendental philosophy" (108). What I am suggesting is that the same is also the case for general logic, which must also accord with transcendental logic. Indeed this must be the case if Kant's account of the critical project is to be a unified one.

⁶ See, for example, Normal Kemp Smith, *A Commentary to Kant's "Critique of Pure Reason"*, 2nd ed., revised and enlarged (New York: Humanities Press, 1962); Robert Paul Wolff, *Kant's Theory of Mental Activity* (Cambridge, MA: Harvard University Press, 1963); H. J. Paton, *Kant's Metaphysics of*

According to most commentators, the derivation is only from the logical forms to the categories. It seems natural that the logical forms themselves are somehow the basis from which the corresponding pure concepts of the understanding are derived. Nevertheless, a close examination of the distinction between general and transcendental logic shows that the reverse is also true in a different way. Since general logic is a way according to which the subject comes to have content of knowledge, and since it is the very task of transcendental logic to investigate the origin--the source of one's unassailable right--of one's knowing, both analytically and synthetically, the latter is the more basic investigation in the sense that general logic, according to Kant, is only possible because transcendental logic is its necessary condition. Thus, the logical forms of judgments are already conditioned by the categories by means of unity effected by synthesis.

At the beginning of the section *The Clue to the Discovery of All Pure Concepts of the Understanding*, Kant writes: "If we abstract

Experience, 2 vols. (New York: Macmillan, 1936); Peter Strawson, *The Bounds of Sense* (London: Methuen, 1966); Klaus Reich, *Die Vollständigkeit der kantischen Urteilstafel* (Berlin: Diss. Rostock, 1932); Henry E. Allison, *Kant's Transcendental Idealism: An Interpretation and Defense* (New Haven: Yale University Press, 1983); Hubert Schwyzer, *The Unity of Understanding: A Study of Kantian Problems* (Oxford: Clarendon Press, 1990); Charles Nussbaum, "Concepts, Judgments, and Unity in Kant's Metaphysical Deduction of the Relational Categories" *Journal of the History of Philosophy* 28(1990): 89-103; J. Michael Young, "Functions of Thought and the Synthesis of Intuitions" in *The Cambridge Companion to Kant* ed. Paul Guyer (Cambridge: Cambridge University Press, 1992).

from all content of a judgment, and consider only the mere form of understanding, we find that the function of thought in judgment can be brought under four heads, each of which contains three moments" (A70/B95). "All content of a judgment" here clearly refers to the total sum of content in language--all the possible sentences in a language, a total body of discourse. Since the logical forms are obtained by abstracting from such discourse, they are crucially dependent on it. The manner in which Kant and the logicians of his day arrived at the Table of Logical Forms at A70/B95 was as follows: They observed the language used in diverse situations and the logical relations of the sentential components of that language. Furthermore, they considered the total sum, the infinitely many sentences in a language which embody all possible meanings or content, which they abstracted away. The result of such abstraction was then the Table given by Kant at A70/B95.⁷

Viewed this way, then, the logical forms could be said to owe their origins to discourse. Now the distinction between formal and transcendental logic becomes crucially relevant, for the overall aim of the

⁷ In *Die Vollständigkeit der kantischen Urteilstafel*, Klaus Reich tries to provide an argument to the effect that the twelve categories, and only these twelve, derive from the analytic unity of consciousness--the 'I think.' This attempt has been criticized by L. Krüger in "Wollte Kant die Vollständigkeit seiner Urteilstafel beweisen?" *Kant-Studien* 59(1968): 333-355. In the *Critique*, however, Kant does not give any detailed discussion of why he arrives at these twelve logical forms and none other. It seems that he takes the table to be obvious and stands in no need of a justification. He only states that an act of abstraction of sentences in discourse will yield the table at A70/B95.

Critique is to find out how synthetic knowledge is possible a priori, and essential to this project is the role of transcendental logic, which seeks the ground upon which knowledge is possible. Kant tries to show such a priori ground in the Metaphysical Deduction, which can be recognized by reflecting on the logical forms themselves.

Kant argues that the categories constitute such transcendental, a priori ground for discourse. This argument will naturally have to be completed in the Transcendental Deduction; in the Metaphysical Deduction, nevertheless, Kant's purpose is only to point out the correspondence between the two tables. Since transcendental logic is the investigation of the necessary condition of possibility of logical forms, and since Kant has already spelled out the logical forms in the Table, it is natural to assume that there has to be an account of the necessary condition of possibility of the Table itself. General logic shows that there are twelve logical forms, so the task of transcendental logic is to find the condition of possibility for each of them. Kant is pointing out that, from the fact that there are two distinct kinds of investigation, one has to posit the categories which are the transcendental-logic-analogues of the logical forms obtained from within general logic.

Kant tries to show that reflections on the abstracted forms of judgments, based on the distinction already discussed in the section *Idea of the Transcendental Logic* (A50/B74 - A65/B88), reveal that there has to be the pure concepts of understanding corresponding to the abstract forms. Since transcendental logic especially treats of the bound of possibility of the former, it has to have analogues for each member of the Table of Logical Forms. The Metaphysical Deduction, therefore, could be viewed as an introduction of the important players in

Kant's critical project. General logic is concerned with the forms of discourse in general, hence it is already constrained by the limit of possibility within which meaningful discourse can occur. Due to the fact that the Table of Logical Forms represents all the possible forms that sentential components in discourse can assume, searching for the necessary condition of the possibility of such a table is tantamount to looking for the necessary condition of the possibility of discourse in general. The focal point of this search in Kant lies in the argument from A76/B102 to A83/B109.

Transcendental logic has as material a "manifold of a priori sensibility," functioning as "material for the concepts of pure understanding" (A77-78/B102). Since transcendental logic is concerned expressly with the possibility of human knowledge, the relevance of human receptivity already treated in the Aesthetic becomes necessary. Thus, Kant states: "But if this manifold [i.e. of space and time, and so of empirical intuitions in general] is to be known, the spontaneity of our thought requires that they be gone through in a certain way, taken up, and connected" (A77/B102). Kant names this act "synthesis." The idea is that any act of thinking requires an act of joining together various representations in one act of *Erkenntnis*, or in other words, in one act of mentally grasping of a distinct mental object.⁸ Representations presented

⁸ An act of *Erkenntnis* is an act of mentally grasping or comprehending a distinct intentional object for example, a having of a red square mental image. That Kant's use of the term here is technical is shown by his use of the word as a count noun in various places in the *Critique*. At A119, for instance, he uses the plural form "*Erkenntnisse*," meaning various distinct "ways" that the understanding can be related to its object. Kemp Smith's

by receptivity cannot be known if they have not already been "taken up" and "connected" by the mind through synthesis.

The upshot is that any act of judgment requires synthesis. According to Kant at A78/B103, "By synthesis, in its most general sense, I understand the act of putting together, and of grasping what is manifold in them in one act of knowledge" (*in einer Erkenntnis*). For example, when one thinks, or says out loud, "This, before me, is a cat," or "I am having a distinct image of a red triangle," one is making a judgment based on one's intuitions. Such judgments are encoded in form of a language.

This point about having a judgment in a language is very important as a key to understanding how Kant bridges the distinction between the logical forms and the categories, as he states in the following passage:

The same function which gives unity to various representations in a judgment also gives unity to the mere synthesis of various representations in an intuition; and this unity, in its most general

translation of the word in his edition, however, seems to be misleading. At A19/B33 and A119, he translates the word as "a mode of knowledge," but in the chapter on the Table of Categories he translates it as "one act of knowledge" (A77/B103). The two phrases are different. The first one seems to mean something like a distinct species of knowledge, whereas the latter suggests an act. Hence it is quite clear that the latter meaning is a more accurate interpretation of Kant's use. What *eine Erkenntnis* actually means is not akin to a separate "mode" or "species" of knowledge, but one distinct act of knowing or cognition of an intentional object. See also Hubert Schwyzer, *The Unity of Understanding*: 57n.

expression, we entitle the pure concepts of the understanding. The same understanding, through the same operations by which in concepts, by means of analytical unity, it produced the logical form of a judgment, also introduces a transcendental content into its representations, by means of the synthetic unity of the manifold in intuition in general. On this account we are entitled to call these representations pure concepts of the understanding, and to regard them as applying a priori to objects--a conclusion which general logic is not in a position to establish (A79/B104-105).

The question is: how can the categories be the unity by means of which the understanding produces the logical forms through analytical unity? The answer must lie in the fact that the categories are the most general forms possible for thinking, and are the priori ground of possibility of the latter. Since we have already seen in the case of logical forms that there are twelve such forms constituting the forms of discourse in general, in thinking these twelve forms are also present, but now they act as "pure concepts of the understanding," which are necessary for the understanding to understand anything at all or to "think an object of intuition" (A80/B107). Thus, in so far as a meaningful sentence reflects thinking and understanding, it is also ultimately unified through the categories as the most general forms of thinking. In other words, since judgments are in form of a language, and since Kant tries to show that there are twelve forms that judgments can take, and since any act of thinking requires synthesis in the first place, thinking can then proceed through twelve possible channels only. These channels, obviously enough, are the categories.

For Kant, concepts are "discursive" and not "intuitive." They are integral parts of judgments, so they are based on what Kant terms "functions," which are "the unity of the act of bringing various representations under one common representation" (A68/B93). The pure concepts of the understanding are then the most general concepts possible; Kant argues that they are the ways or modes of unification that are the most basic, and that they are integral to any act of thinking whatsoever.

"The same function of understanding" gives rise to unity in intuitions as well as in judgments. This same function is then shown to be at work both in uniting representations in an intuition and in a judgment.⁹ Hence there are two levels of synthesis. The first one is the level of intuition. The subject takes up the raw sensory data and works it up, so to speak, into something that can be directly thought of as individualized representations.¹⁰ The

⁹ Here I agree with Allison in Kant's *Transcendental Idealism*: 123. The work of synthesis is the same throughout, whether operating to connect and unite various sensory data into intuitions or singular representations or to unite various intuitions under one common heading of a concept.

¹⁰ See Wilfrid Sellars, *Science and Metaphysics: Variations on a Kantian Themes* (London: Routledge, Kegan Paul, 1968) for a detailed treatment of Kantian intuitions as singular and individualized representations. See also Moltke S. Gram, "The Sense of a Kantian Intuition" in *Interpreting Kant* (Iowa City: University of Iowa press, 1982): 41-67. For a discussion of Kantian intuitions in relation to modern cognitive theory, see Lorne Frankenstein, "Kant's Account of Intuition" *Canadian Journal of Philosophy* 21(1991): 165-193, and "Kant's Account of Sensation"

second level is at the level of concepts. The synthesizing act at this level is achieved by looking for common properties among various intuitions under one general heading, thus uniting them. So the act involves application of concepts to the intuitive material already presented. Kant maintains that, in order that concepts be applicable to intuitions, synthesis is required. The act itself, however, is the same in either case, since it consists of the function of uniting and conjoining representations in either case. Therefore, it is clear that application of concepts requires synthesis from the beginning.

The whole idea might be better understood if an analogy with the *Metaphysical Exposition of Space and Time* at A22/B37 to A25/B40 and A30/B46 to A32/B48 is taken into consideration. In the Aesthetic, space (and time) is shown to be a necessary condition for the possibility of perceiving something as outside the subject. In this present case, the target is to find such a condition for discourse. Kant thinks that sentences comprising discourse can be grouped into twelve most basic forms. These forms, however, are not such a condition of possibility of discourse because they are obtained analytically by abstraction from all content of judgments (or statements) in discourse. What he is looking for, on the other hand, is something without which discourse would not be possible. The search naturally traces to individual acts of thinking and uses of language. These uses would not be possible without occurring through one or more of the twelve possible channels; these channels are, therefore, such a condition of possibility. Since such uniting is always accomplished through twelve possible channels, the categories are the conditions

Canadian Journal of Philosophy 20(1990): 63-88.

of possibility for the logical forms, which are abstracted from discourse.

To sum up the argument: Any judgment requires synthesis. Consequently, since there are twelve most general forms that a judgment can take (as twelve ways or modes of unification), there are also twelve corresponding forms of thinking. The reason is that discourse in general is made possible by acts of thinking in the first place, or in other words, discourse is only "thinking out loud."¹¹ There being discourse presupposes that there is a community of conversing beings. Success in communication in turn presupposes that these beings possess some ability a priori to communicate. This ability is embodied in rational beings in the form of an ability to unite representations according to the twelve categories as the twelve possible channels of uniting representations into complete thought.

In other words, sentences in Mentalese, or in a language of thought, are only possible because the subject is able to unite components in such language according to the twelve possible channels of unity. Sentences in Mentalese are but exact

¹¹ Kant explicitly says that thinking must be in the form of language. In *Anthropology from a Pragmatic Point of View* trans. Mary J. Gregor (The Hague: Nijhoff, 1974), he writes:

Language signifies [the presence] of thought and, on the other hand, the means par excellence of intellectual signification is language, the most important way we have of understanding ourselves and others.-- Thinking is talking with ourselves (the Indian of Otahiti call thought "speech in the belly"); so it is also listening to ourselves inwardly (by reproductive imagination) (§39, 192).

reflections of sentences uttered in public. The latter could not exist as a means of understanding if not for the sentences "already in the head." Therefore, the twelve possible channels of unity, taken as a whole, is the condition without which sentences in public language are not possible at all. On the other hand, we know that these possible channels are thus and so only when we attend to the abstraction of public language, resulting in the Table of Logical Forms. This, I submit, is the reason why the two Tables completely correspond to each other.

Consequently, an account of the correspondence between the two sets of forms can now be proposed. On the one hand, the categories are the foundation upon which discourse is possible. On the other hand, the logical forms are publicly available as a means by which the identities and number of the categories are known to us. Therefore, the relationship between the logical forms and the categories goes both ways. On the one hand, the logical forms themselves do not exist *in vacuo* apart from the conditions of possibility of thinking in general. On the other hand, we are able to recognize the complete Table of Categories only through the corresponding logical forms. Thus the logical forms, according to traditional parlance, are the *ratio cognoscendi* of the categories, while the latter is the *ratio essendi* of the former. The categories, in other words, are the condition of possibility of the logical forms, and the latter is the only condition by which the former are known.

III

The relation between the categories and the logical forms in the Metaphysical Deduction here runs parallel to that between freedom and moral law in Kant's

practical philosophy. In a note in the Preface to the *Critique of Practical Reason*, Kant writes:

To avoid having anyone imagine that there is an inconsistency when I say that freedom is the condition of the moral law and later assert that the moral law is the only condition under which freedom can be known, I will only remind the reader that, though freedom is certainly the *ratio essendi* of the moral law, the latter is the *ratio cognoscendi* of freedom. For had not the moral law already been distinctly thought in our reason, we would never have been justified in assuming anything like freedom, even though it is not self-contradictory. But if there were no freedom, the moral law would never have been encountered in us¹²

Transcendentally speaking, freedom is the condition of possibility of the moral law, since for the moral law to be actually and necessarily binding, freedom of the will--the state of being totally unconstrained by any external forces--must be presupposed. On the other hand, moral law is the sole condition by which freedom is known and recognized, for moral law is what is directly recognizable in the thought of any purely reflective rational being; it is what lies distinctly before the mind as the guiding principle of the subject's action. The subject recognized that such moral law points to the fact that it necessarily presupposes freedom, and since freedom lies hidden from view as the ultimate transcendental condition of possibility of moral law, moral law is then the sole factor

that makes it possible for freedom to become known. This point is summed up clearly by Lewis White Beck: "... the concept of freedom and that of a universal practical law reciprocally imply each other. We are not directly aware of freedom, but we are directly aware of the binding quality of a universal law, for we have it presented to us in consciousness of the moral law. The moral law thus leads us inevitably to assert the existence of freedom."¹³

So we have a direct evidence that Kant was aware of the distinction between *ratio essendi* and *ratio cognoscendi*; these relations, I would like to add, are also at work in the realm of pure reason. The logical forms are what we are directly aware of, and reflection reveals that they would not be possible if not for the categories. The relation between the logical forms and the categories then closely parallels that between freedom and moral law in the second *Critique*.

¹² Immanuel Kant. 1956. *Critique of Practical Reason*. Lewis White Beck (trans.). New York: Macmillan.

¹³ Lewis White Beck, *A Commentary of Kant's Critique of Practical Reason* (Chicago: University of Chicago Press, 1960): 73. The issue of the relation between freedom and moral law has attracted the attention of Kantian scholars recently. See, for example, Henry E. Allison, "Morality and Freedom: Kant's Reciprocity Thesis" *The Philosophical Review* 95(1986): 393-425; Dieter Henrich, "Die Deduktion des Sittengesetzes," in *Denken im Schatten der Nihilismus*, ed. Alexander Schwan (Darmstadt: Wissenschaftliche Buchgesellschaft, 1975): 55-112; and Karl Ameriks, "Kant's Deduction of Freedom and Morality," *Journal of the History of Philosophy* 19(1981): 53-79. Allison, in his important article, argues that the relation between freedom and the moral law is a reciprocal one. Thus his view is in accordance in general terms with the view I present here. However, Allison does not mention that the relation is that of *ratio cognoscendi* and *ratio essendi*.

In a remark in the Chapter *Principles of Pure Practical Reason* in the second *Critique*, there is an interesting passage:

But how is the consciousness of that moral law possible? We can come to know pure practical laws in the same way we know pure theoretical principles, by attending to the necessity with which reason prescribes them to us and to the elimination from them of all empirical conditions, which reason directs. The concepts of a pure will arises from the former, as the consciousness of understanding from the latter. That this is the correct organization of our concepts, and that morality first reveals the concept of freedom to us while practical reason deeply perplexes the speculative with this concept which poses the most insoluble of problems, is shown by the following considerations. First, nothing in appearances is explained by the concept of freedom, but there the mechanism of nature must be the only clue. Second, there is the antinomy of pure reason which arises when reason aspires to the unconditioned in a causal series and which involves it in inconceivabilities on both sides, since at least mechanism has a use in the explanation of appearances, while no one would dare introduce freedom into science had not the moral law and, with it, practical reason come and forced this concept upon us¹⁴

It is the same act that attends to the necessity of, and abstracts all empirical content from both the pure theoretical and

practical principles. In the case of the former, such abstraction according to Kant has to start at ordinary knowledge claims and judgments and results in the twelve most basic logical forms. The same is also the case for the abstraction of pure practical principles. By attending to the forms of discourse in general, the structure of pure understanding is revealed, which normally would not be open to examination were it not the task of the process of abstraction that Kant mentions in the text above. On the other hand, attending to the force of necessity that pure practical laws bestow upon us entitles us to realize that freedom indeed attains the status of objective reality, even though pure theoretical understanding would be forever at a loss to explain it. The antinomy of pure reason is precisely the consequence of such transgression of pure reason beyond the bounds prescribed in the *Transcendental Aesthetic* and *Analytic*. Mechanism in nature, however, is the only clue available to contrast with the force of pure practical law, and consequently the recognition of freedom as objective.

In a nutshell, then, this is simply to say that the moral law is the necessary stepping stone by means of which freedom is known as the ultimate condition of possibility of moral law itself. Analogously, the recognition of the logical forms of discourse is also the sole stepping stone by which one recognizes the overall structure of pure understanding constituted by the twelve categories. The latter are the condition of possibility of any act of thinking, each of which is a particular component of discourse, from which the logical forms are abstracted.

Even though Kant does not say explicitly in the First *Critique* that the relation of the logical forms and the categories is as what I have argued, there are passages that

¹⁴ *Critique of Practical Reason*: 30.

strongly supports my interpretation. Indeed the title of the section, "*The Clue to the Discovery of All Pure Concepts of the Understanding*" (A70/B95),¹⁵ states very much in literal terms one aspect of the interpretation presented here. Furthermore, in the passage directly after the Table of Categories at A80/B106, he comments on the nature of the table itself:

This then is the list of all original pure concepts of synthesis that the understanding contains within itself a priori. Indeed, it is because it contains these concepts that it is called pure understanding; for by them alone can it understand anything in the manifold of intuition, that is, think an object of intuition. This division is developed systematically from a common principle, namely, the faculty of judgment (which is the same as the faculty of thought). It has not arisen rhapsodically, as the result of a haphazard search after pure concepts, the complete enumeration of which, as based on induction only, could never be guaranteed. Nor could we, if this were our procedure, discover why just these concepts, and no others, have their seat in the pure understanding (A80/B106 - A81/B107).

Kant is trying to give a justification of the Table of Categories. It is clear, at least, that he maintains that the complete list of the categories could not be obtained by the process of mere gathering of pure concepts, as Kant accuses Aristotle of doing just that in the text immediately following the quoted passage above (A81/B107).¹⁶ There

has to be a guiding principle by means of which we are justified in claiming that our list is complete and exhaustive. Kant states that such principle comes from "the faculty of judgment," which is the same as "the faculty of thought." Now at A69/B94 Kant says that all acts of understanding can be reduced to judgments, and "the understanding is the faculty of thought." What this means is that all acts of understanding take place in language, and the language of understanding can be subsumed under what he calls "higher representation, which comprises the immediate representation and various others. . . in knowing the object" (A69/B94). Continuing the process, one certainly finds, according to Kant, the most general concepts that are available to the understanding in its act of judging. Since *all* acts of understanding can be reduced to the faculty of judgment, the latter faculty then is the guiding principle that justifies the completeness and exhaustiveness of the list of categories.¹⁷

Here one can clearly discern the parallel between the work of the faculty of judgment and the normal process of abstraction. According to Kant, abstraction reveals that there are twelve logical forms according to the Table at A70/B95. Since understanding proceeds in language, the faculty of judgment also reveals that there are such and such "pure concepts of the understanding" that are required if the understanding is to be able to understand

fundamental concepts. But as he did so on no principle, he merely picked them up as they came his way, and at first procured ten of them, which he called *categories* (predicaments)" (A81/B107).

¹⁷ But exactly *how* the complete list of logical forms is justified is still a matter of controversy. See note 6.

¹⁵ My own italics.

¹⁶ "It was an enterprise worthy of an acute thinker like Aristotle to make search for these

anything or "think an object of intuition" (A80/B106). Therefore, the faculty of judgment is able to be the guiding principle in the search for the complete and exhaustive list of categories because abstraction reveals that there are such and such a number of the most general logical forms comprising a complete and exhaustive list. Kant maintains that the understanding is the faculty of thought (A69/B94), and that thought is always in language, as we have seen. The upshot is then that the most general forms of language, being the results of the normal act of abstraction, point a way to a realization that each of them completely corresponds to its respective forms of understanding, which constitute the faculty of judgment. Since the most general forms of language, or the logical forms, owe their origin to the mere process of abstraction, they cannot themselves be such constitutive factor. The faculty of judgment must then be constituted by another completely different set of forms or concepts--i.e. the categories, since they are the forms that constitute the justifying, transcendental origin of language itself.¹⁸

¹⁸ Another important piece of evidence lies in a passage from the *Prolegomena*: "The logical moments of all judgments are so many possible ways of uniting representations in consciousness. . . . Experience consists in the synthetic connection of appearances (perceptions) in consciousness, so far as this connection is necessary. Hence the pure concepts of the understanding are those under which all perceptions must first be subsumed before they can serve for judgments of experience, in which the synthetic unity of the perceptions is represented as necessary and universally valid" (Immanuel Kant, *Prolegomena to Any Future Metaphysics*, Indianapolis, IN: Hackett, 1977, §22: 305). The first sentence is unequivocal in showing the relation of the logical moments to the

IV

This account of the Metaphysical Deduction differs from those put forth by some commentators, notable among whom is Henry Allison, who argue that the logical forms and the categories differ only with respect to the latter's being none other than the former's having been supplied "transcendental content," which they argue to be some kind of semantic content for the logical forms.¹⁹ In *Kant's Transcendental Idealism*, Allison argues that the difference between the logical forms and their corresponding categories is that the latter are provided "transcendental content" while the former do not, but in other respects they

synthetic activity of consciousness. In so far as experience is to be objective, it must be subsumed under the pure concepts of the understanding. Since judgment of perception is always dependent upon judgment of experience, an account of the function of unity in judgment of experience is the more basic one. Therefore, the logical moments in the text are only the result of abstraction from all the judgments, and they are as they are only when considered apart from any account purported to justify the claims of the judgments as objective. This objective function cannot be constituted by the logical forms, but only by the pure concepts of the understanding. So uniting representations in consciousness, if it is to be objective, has to rely on the pure concepts and not the abstracted logical forms. However, the logical forms serve as what we already have before we could embark on discovering the categories, for they are abstracted from publicly available discourse. Thus the logical forms are the *ratio cognoscendi* of the categories.

¹⁹ Other commentators include: Peter Strawson, *The Bounds of Sense*; Hubert Schwyzer, *The Unity of Understanding*; and J. Michael Young, "Functions of Thought and the Synthesis of Intuitions."

are one and the same.²⁰ According to Allison, "transcendental content" is the same as the synthetic unity of the manifold, which involves a relation to objective reality.²¹ The logical forms, on this account, do not involve such objective content, but are merely forms that the understanding takes in judging. The forms are the categories when considered apart from their transcendental content.

However, I am suspicious as to whether Allison's account fully captures the whole issue. What I think is missing in his account is that the transcendental content is clearly related to the distinction between transcendental and formal logic, and consequently the matter of providing the necessary ground for the possibility of discourse has to be taken into consideration. The categories are indeed related to objective reality; in fact this will be the conclusion of the Transcendental Deduction, but Allison does not appear to pay attention to the fact that it is the role of transcendental logic that provides such a priori ground, which is constituted by the categories as the pure necessary concepts of the understanding. The point is: the categories are the priori ground which makes the act of the understanding in uniting representations in judgments, whether related to objective reality or totally in imagination, possible in the first place.

This a priori ground of the necessary condition of possibility of discourse, then, is rather the "transcendental content" supplied to the logical forms. The act of synthesis functions according to one or

more of the twelve categories; it is this act that supplies the transcendental content to the abstract logical forms. The supplying of transcendental content is thus nothing other than a consideration of the logical forms in relation to their necessary condition of possibility. The categories are the ultimate functions of unity which is required in each and every act of thinking; the logical forms are merely the products of the act of abstraction. Kant calls both the act of transcendental synthesis and of abstraction into logical forms "the same function" of unity (A79/B104). It is the same operation, only accomplished at different levels, as we have seen. This, however, should not lead one into concluding that the categories and the logical forms are essentially one and the same. The reason is that, in Kant's words, "the same understanding, through the same operation by which in concepts, by means of analytical unity, produced the logical forms of a judgment," and it is also the same understanding that "introduces a transcendental content into its representations" (A79/B105).²² The act of understanding, I have argued, produces the logical forms by means of abstraction, and it also considers these forms as to their condition of possibility, which is Kant's method of transcendental philosophy. Therefore, the categories and the logical forms indeed operate on different levels; the one presupposes the other.

According to the standard view, the role of transcendental logic is specifically to supply the "content" to the judgment forms, thus making them corresponding categories. Here Schwyzer is also typical. To him the role of general logic is only *horizontal*, namely that it ranges over the coherence

²⁰ 123-126.

²¹ 126.

²² My own italics.

making function of the understanding, but the role of transcendental logic is to supply this with the vertical dimension which considers this function in relation to objects in general.²³ Thus Schwyzer's view is, in short, "A given category is the corresponding logical function, conceived now as ranging over whatever might be presented as objects of thought."²⁴

This view, however, does not seem to do justice to Kant's own claim that transcendental logic is to provide the justifying origin for the claims of general logic, as we have seen. Categories represent the complete structure of thought and understanding in rational, discursive being. As such it is already presupposed in general or formal logic, which we have seen to be merely the result of abstraction according to the principle of analytical unity. The standard view seems to put the cart before the horse, so to speak. If the role of transcendental logic is merely to be the supplier of content, then it becomes unduly restricted and even has a more limited scope than its counterpart. But since transcendental logic is more fundamental, this cannot be the case.

The account I am proposing is in accordance with Kant's idea on the transcendental he espouses at A11-12/B25: "I entitle transcendental all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects insofar as this mode of knowledge is to be possible a priori." The "transcendental content" is then the transcendental origin, the condition of

possibility, of our modes of knowing. It is what is responsible as the a priori ground of knowing and understanding. The act of supplying transcendental content is thus the consideration of the logical forms in accordance with such origin. This origin, as Hatfield says, is neither analytic nor synthetic, but *sui generis*.²⁵ The act of tracing back to the origin is accomplished by means of the synthetic unity of the manifold. Kant apparently means that it is the same function of the understanding that unites various representations resulting in a judgment in discourse coded in the form of the language, and this same function also effects thinking in general. The pure concepts governing thinking then become the a priori ground of possibility for forms in discourse. That is to say, the former is the *ratio essendi* of the latter. And since the logical forms are the *ratio cognoscendi* of the categories, the tracing back to the origin of the logical forms has to make use of the material of transcendental logic because humans cannot conceive of any other possibility of thinking other than in the context of human thinking. So any attempt to understand thinking has to take place

²³ Hubert Schwyzer, *The Unity of Understanding*: 15. See also Peter Strawson, *The Bounds of Sense*: 76.

²⁴ H. Schwyzer. *The Unity of Understanding*: 17.

²⁵ Gary Hatfield, *The Natural and the Normative*: 82. In the note to this particular text, Hatfield writes: "Transcendental knowledge results from 'transcendental analysis,' which does not analyze concepts such as cause or substance themselves, but rather analyzes the 'faculty of understanding itself' as the 'birthplace' of concepts such as cause, or substance (A64-6/B89-91). Transcendental philosophy is not to be classified with either the trivially analytic propositions that come from the analysis of given concepts, nor with the synthetic a priori knowledge that transcendental analysis itself explains. . . . [It] investigates instead the possibility of knowledge for a finite intellect with certain forms of sensibility" (305).

within the context of human thinking, and this, as Kant tries to show, necessarily involves receptivity, or the synthetic unity of the manifold presented as the material of transcendental logic. It is precisely by means of this material that the tracing back to the categories from their *ratio cognoscendi* is possible at all.²⁶

V

I have tried to argue that the relation between the logical forms and the categories in Kant's Metaphysical Deduction is two-way. On the one hand, the logical forms are the *ratio cognoscendi* of the categories, for it is by means of the former that the latter are known. On the other hand, the categories are the *ratio essendi* of the logical forms, for the logical forms, being the products of the act of

abstraction that takes away all the content of all possible judgments, owe their origin to the categories, in their capacity as the condition of thought and experience in general. The distinction between transcendental and general logic figures essentially in the relation, since the task of transcendental logic is to seek the justifying origin for the role of general logic as a source of rational knowledge. Since the structure of general logic can be given in the Table of Logical Forms, the corresponding structure is also required in transcendental logic, whose structure is constituted by the Table of Categories.

Even though Kant did not explicitly state that the relation between the categories and the logical forms is not exactly as I have tried to show in the paper, there is at least strong philosophical evidence for it. Thus, the vexing problem of how the categories and the logical forms are related to each other, I believe, can be satisfactorily solved if the relation between them is understood according to what I have argued for in this paper.²⁷

²⁶ See also Charles Nussbaum, "Concepts, Judgments and Unity in Kant's Metaphysical Deduction of the Relational Categories," on the view that the logical forms and the categories are not to be regarded as the same, but that the former presuppose the latter. In Nussbaum's view, concepts can be arranged and rearranged in many ways. For example, the concept of subject can be inverted to become that of predicate, and vice versa. This, however, is not possible in the case of the relational categories. According to him, "Logically, concepts can be combined in any way that is not contradictory. Most concept can serve either as the subject or the predicate of a judgment. Many judgments can be converted, and still others allow exchange of subject-concept and predicate-attribute judgment, however, the subject must function as a substratum and never as an attribute" (95). Moreover, "... the relationship between category and judgmental form cannot be the simple and direct one of providing a general judgmental rule, but is the rather more indirect one of presupposition as mediated by the objective and synthetic unity of self-consciousness" (102).

²⁷ I would like to thank Dr. Pranee Kullavanijaya, chief editor of *Manusya*, for her help in preparing the manuscript of this paper. My thanks also to the anonymous referees, whose suggestions led to many improvements of the successive previous drafts.