

KANT'S METAPHYSICAL DEDUCTION AND THE INTELLECTUAL ORIGIN OF THE
CATEGORIES

by

Santiago de Jesus Sanchez Borboa

Copyright © Santiago de Jesus Sanchez Borboa 2021

A Dissertation Submitted to the Faculty of the

DEPARTMENT OF PHILOSOPHY

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

2021

THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

As members of the Dissertation Committee, we certify that we have read the dissertation prepared by: Santiago de Jesus Sanchez Borboa
titled: Kant's Metaphysical Deduction and the Intellectual Origin of the Categories

and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Albert Smit

Albert Smit

Date: Jul 27, 2021

Mark Timmons

Mark Timmons

Date: Jul 27, 2021

Jason Turner

Jason Turner

Date: Jul 28, 2021

Timothy Rosenkoetter

Timothy Rosenkoetter

Date: Jul 28, 2021

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

Albert Smit

Albert Smit

Department of Philosophy

Date: Jul 27, 2021



ACKNOWLEDGEMENTS

This dissertation has been a long time in the making, and I cannot hope to thank everybody who has helped make it a reality. I can only include some of the most salient individuals with apologies to the many others who shall remain unacknowledged.

I must begin by thanking my dissertation advisor, Houston Smit, who inspired me to shift my focus to Kant scholarship during graduate school. His work helped me appreciate just how sophisticated Kant's philosophy is and how valuable it remains to this day. Houston not only allowed, but indeed encouraged, me to write a dissertation on two of my philosophical passions that were awakened when I initially read the first *Critique*: Kant's architectonic tables (an obscure piece of philosophy that has deeply intrigued me from the first moment I set eyes on it), and Kant's response to Hume's empiricist skeptical challenge to the very idea of objectively necessary connections between distinct existents (a problem that shook me to my existential core and set my reason adrift with doubt in a confusing mosaic of dark passions that I was only able to get out of with the light of critiquing my own reason with Kant's guidance). Houston inspired me to follow my deepest philosophical passions and has illuminated the way through Kant's critical philosophy with the light of his own incisive and insightful self-critiquing reason. I am eternally grateful to him for bringing me Kant.

I also owe deep debts of gratitude to the other members of my committee that helped make this dissertation what it is. Mark Timmons's sage counsel on making it clear to the reader what success constitutes for a philosophical project helped rein in the dissertation into a manageable and (I hope) digestible form. Timothy Rosenkoetter helped me better appreciate the complexities of Kant's views about many topics, including judgment and logic, but especially

modality, for which I am thankful. Jason Turner graciously agreed to join my committee later on in the project. It was always enriching and stimulating to have his perspective as a contemporary logician and metaphysician with a different approach to philosophical problems and methodology.

In addition to my committee members, I am also deeply indebted to other Kant scholars whose work has informed my project. It is no exaggeration to say that if I have been able to see far in the mesmerizing vistas of Kant's metaphysical deduction, it is only by standing on their gigantic shoulders. I am especially indebted to Till Hoepfner's work. Indeed, engaging with it helped determine the shape of the dissertation to a large degree. Till very kindly met with me when I was living and doing research in Berlin, and we had great conversations about Kant, philosophy in general, and the metaphysical deduction in particular. Since then, his work has continued to serve as an inspiration. I greatly look forward to incorporating insights from his latest book (*Urteil und Anschauung*) into future iterations of this project. The ideas in this paper also benefited greatly by being discussed at Tobias Rosefeldt's seminar Humboldt University in Berlin during the Winter of 2016 and Summer of 2017. I thank the DAAD (German Academic Exchange Service) for making possible these interactions in Berlin through a generous research grant that allowed me to live and work in Berlin for ten months.

Additionally, I owe thanks to many other friends and colleagues at the University of Arizona and elsewhere. Many a friend has kindly put up with my often-overflowing enthusiasm for Kant's philosophical system and especially the foundations of the *Critique of Pure Reason*. Much of my philosophical development as an interlocutor is due to many engaging conversations in which I tried to show non-Kant-expert friends and colleagues what I think is so exciting and

powerful about what Kant is doing all over the place. Here I can only name a few of these kind souls: Jacob Barrett and Chris Howard (with whom I spent many an afternoon in my backyard under the Tucson desert sun discussing every philosophical topic), Tim Kearl (whose conversion to the importance of the history of philosophy reminds me of the importance of working on Kant), and Robert Wallace (with whom I had many a conversation concerning spontaneity, freedom, and philosophical methodology). Special thanks are due to Jeremy Reid who first convinced me to take seriously the idea of becoming a Kant scholar. Without him, my philosophical path would have been much different.

On this personal note, I would also like to thank my parents for all their help and support throughout my entire education. I very much appreciate their ongoing support with my decision to become a philosopher, especially given that it means often being far from home and spending hours on end thinking about obscure issues like the possibility of thought, experience, and morality.

Above all, however, I owe thanks to my wife, Taylor Boulware, Ph.D. I cannot begin to properly express all the many ways she has helped and supported me since she has joined me in this process (and indeed, in life). Her patience with my diving into (and sometimes getting lost in) the depths of transcendental philosophy for hours on end is always appreciated, and her generosity and intellectual spirit serve as a constant inspiration to me as a thinker.

The parts of chapter four dealing with the third categories under each heading draw on my 2018 article, "On Kant's Derivation of the Categories," *Kant-Studien* 109(4), pp. 511-536.

TABLE OF CONTENTS

ABSTRACT.....	8
CHAPTER 1 – THE METAPHYSICAL DEDUCTION AND GENERATION OF THE CATEGORIES.....	10
1.1 The <i>Leitfaden</i> Project and the Argument of the Metaphysical Deduction.....	10
1.2 Interpretations of the Metaphysical Deduction in the Literature.....	14
1.3 Standards and Desiderata for Interpretations of the Metaphysical Deduction.....	29
1.4 On Kant’s Notion of a Deduction.....	31
1.5 Structure of the <i>Leitfaden</i> and the Metaphysical Deduction’s Argument.....	46
CHAPTER 2 – THE LOGICAL FORMS OF JUDGMENT AND THE LOGICAL CONCEPT OF THE UNDERSTANDING.....	57
2.1 Context to the <i>Leitfaden</i> : Introductory Material to the Analytic of Concepts.....	59
2.2 The (Logical) Concept of the Understanding as a Capacity to Judge.....	66
2.3 The Guiding Principle and the Completeness of the Table of the Moments of Thinking in Judgment.....	75
2.4 The Capacity to Judge as The Idea of The Whole and the Completeness of the Table of the Moments of Thinking in Judgment.....	97
2.5 Conclusion.....	131
CHAPTER 3 – THE LOGICAL FUNCTIONS OF THE UNDERSTANDING AND THE HIGHER CONCEPT OF THE UNDERSTANDING.....	133
3.1 The Logical Functions in the <i>Leitfaden</i> Chapter.....	135
3.2 Functions/Forms and Proops’s “Vexed Question”.....	156
3.3 The Two Aspects of the Table of the Moments of Thinking in Judgment.....	159
3.4 From Individual Logical Forms of Judgment to Individual Logical Functions of the Understanding.....	166

3.5	Conclusion.....	184
CHAPTER 4 – THE GENERATION OR ORIGINAL ACQUISITION OF THE CATEGORIES AND THE REAL CONCEPT OF THE UNDERSTANDING.....		
4.1	Introduction.....	186
4.2	Generating the Categories of Quantity from the Functions of Quantity.....	189
4.3	Generating the Categories of Quality from the Functions of Quality.....	196
4.4	Generating the Categories of Relation from the Functions of Relation.....	203
4.5	Generating the Categories of Modality from the Functions of Modality.....	213
4.6	A More Systematic Argument in Favor.....	222
4.7	Conclusion.....	228
CHAPTER 5 – EVALUATING INTERPRETATIONS OF THE METAPHYSICAL DEDUCTION.....		
5.1	Introduction.....	229
5.2	Meeting the Standards.....	230
5.3	Meeting the Desiderata.....	273
5.4	Conclusion.....	309
APPENDIX A – Table of The Logical Forms of Judgment.....		312
APPENDIX B – Table of The Categories.....		312
APPENDIX C – Table of The Concepts of Reflection.....		313
APPENDIX D – Table of The Functions of the Understanding.....		313
APPENDIX E – The Individual Functions of the Understanding.....		314
REFERENCES.....		315

ABSTRACT

Hume famously argues that we have no idea of objectively necessary connections between existents. But in his metaphysical deduction of the categories, Kant seeks to vindicate our right to use the categories to think of such connections. Kant holds that certain acts of the understanding make judgments possible. For example, the judgment “If the sun shines, then the stone warms up” is made possible by thinking of the constituent judgments using the hypothetical form of judgment. The judgment “The sun warms the stone” is made possible by thinking of the perceived sun and stone using the category CAUSE. My dissertation offers a novel account of how the logical forms of judgment and the categories relate. I argue that the same logical functions of the understanding make possible both the use of the logical forms of judgment and of the categories. The logical functions are reflective activities through which the mind combines representations according to certain rules. For example, the ground-consequence function, through which the mind combines representations by treating some as grounded on others, is exercised both when the mind combines conceptual representations using the hypothetical form (“If the sun shines, then the stone warms up”) and when it combines perceptual representations using the category of CAUSE (“The sun warms the stone”). My dissertation generalizes this interpretation, offering a systematic account of the origin of each logical form and category. Based on this account, I offer a unique interpretation of the metaphysical deduction and show how Kant legitimizes the use of the categories in thinking.

*„Die Ordnung und Regelmäßigkeit also an den Erscheinungen, die wir **Natur** nennen, bringen wir selbst hinein und würden sie auch nicht darin finden können, hätten wir sie nicht oder die Natur unseres Gemüths ursprünglich hineingelegt.“*

- Immanuel Kant, *Kritik der reinen Vernunft*

“Thus, we ourselves bring into the appearances the order and regularity in them that we call **nature**, and moreover we would not be able to find it therein, had not we or the nature of our mind originally put it there.”

- Immanuel Kant, *Critique of Pure Reason*

CHAPTER 1 – THE METAPHYSICAL DEDUCTION AND GENERATION OF THE CATEGORIES

1.1 The *Leitfaden* Project and The Argument of the Metaphysical Deduction

The first part of the Analytic of Concepts in the *Critique of Pure Reason* is titled “Of the guiding thread to the discovery to all concepts of the understanding [*Von dem Leitfaden der Entdeckung aller reinen Verstandesbegriffe*]” and is essentially concerned with the *Leitfaden*, the “guiding thread” to the discovery of the pure concepts of the understanding. This guiding thread is the idea of the understanding as a capacity to judge (A69/B94). In the *Leitfaden* project, the logical forms of judgment (the basic moments, aspects, or dimensions of the act of thinking or judgment) are supposed to guide us in the discovery of the categories or pure concepts of the understanding (the concepts which collectively constitute our concept of a real object or *Gegenstand*¹ as a subject of power in general). Moreover, these logical forms are supposed to guide us in a way that legitimizes our using these concepts in genuine thinking of *Gegenstände* through them. An essential part of this project occurs in section 10, in an argument he retrospectively (in section 26 of the B-edition transcendental deduction) calls the “metaphysical deduction.” Although scholars have not paid as much attention to the metaphysical deduction as to its transcendental counterpart, it is no exaggeration to say that Kant takes this lesser-known

¹ I follow Houston Smit in interpreting Kant as working with an Aristotelian notion of the real as a subject of activity and power (ms a). Following Smit, I distinguish between a *Gegenstand* and a *Ding*. A *Gegenstand* is the subject of a power considered insofar as it is or can be represented in a capacity of representation as the subject of *some* power (i.e., something real considered as “standing against” a subject that can represent it). By contrast, a *Ding* is a subject of activity and power considered positively as the being that it is (thus as having an existence outside of being represented). Throughout this dissertation, my focus is on categories as concepts of *Gegenstände*, i.e., as concepts of subjects of activity and power considered in relation to our capacities of representation. Moreover, on this way of reading Kant, these are both distinct from *Object*, which Kant uses in two senses: (1) a general one (roughly, whatever a subject of a capacity of representation is conscious of insofar as the subject is conscious of it (cf. A189/B233)) and (2) a specific one (roughly, that to which a representation is to be related in an act of representation, as something distinct from the representation we relate to it in such an act). These distinctions are part of a systematic reading that Smit develops in *Kant’s Theory of Cognition* (ms a).

deduction to be central to the whole of his critical philosophy. This argument, in Kant's own words, purports to establish [*darzutun*] the "a priori origin of the categories in general [*der Ursprung der Kategorien a priori überhaupt*]"² "through their complete coincidence [*völlige Zusammentreffung*] with the universal logical functions of thinking" (B159). By means of this argument then Kant purports to establish the origin of (and thereby legitimize) one of the most important aspects of his critical philosophy: the categories or pure concepts of the understanding. These are the concepts by means of which we are able to think of real objects (*Gegenstände*), i.e., concepts that collectively constitute our concept of a thing as a subject of power in general³ and are therefore constitutive of not only experience but also of metaphysics.

Despite how central the metaphysical deduction is to the whole of Kant's philosophy, it is unfortunately unclear how exactly Kant means to establish the a priori origin of the categories in general and what exactly this is supposed to accomplish for his philosophical system. Given this, it is perhaps not surprising that there is a long history of commentators dismissing the argument of the metaphysical deduction and indeed the project of the *Leitfaden* (the project of using the logical forms of judgment as a clue or guiding thread to the categories). As Béatrice Longuenesse has pointed out, commentators as diverse as Hermann Cohen, Martin Heidegger, and P.F. Strawson all reject the *Leitfaden* project and thus the centrality of the metaphysical

² Here I am inclined to read the 'a priori' as modifying the origin and the '*überhaupt*' as modifying the categories. However, it is plausible to read the *überhaupt* as also modifying the origin. If so, then what is established [*darzutun*] is the a priori origin in general of the categories. Reading this passage this way does not affect the substance of my interpretation.

³ This is especially the case for the categories under the first three headings (quantity, quality, and relation). Things are more complicated for those under the heading of modality, which Kant notes are not determinations "in the object itself [*im Objekte Selbst*]" (A219/B267).

deduction as ill-motivated.⁴ There have recently been more sympathetic takes on the metaphysical deduction,⁵ but despite these efforts, there is no generally accepted reading of this argument and of how it fits into the rest of the first *Critique*.

In this dissertation, I provide a novel interpretation of the metaphysical deduction of the categories. This interpretation is based on a particular view about the logical functions of thinking (as “unities of the act of ordering several representations under communal [*gemeinschaftlich*] ones” (A68/B93)⁶) and their relationship to the categories. I will have much more to say about these functions, but as a first pass, we can think of them as the fundamental ways that the understanding orders or combines representations in general. The forms of judgment and the categories are in turn (as a first pass) the fundamental ways of combining conceptual⁷ and perceptual⁸ representations,⁹ respectively.

⁴ These different interpreters all reject the *Leitfaden* project and Kant's claim that the categories originate from the logical functions even though they take different interpretive approaches. Strawson argues that according to contemporary logic, which logical forms are primitive (and which are derivative) is "the logician's choice," so it makes no sense to think of certain logical forms as privileged (1966, 80). Cohen seeks to find the origin of the categories in the *Analytic of Principles* (as principles of an epistemology of Newtonian science) (1871 345-6), while Heidegger seeks to find it in the imagination (as the common root of the understanding and sensibility) (1929, §12 & 1927, §21e).

⁵ Hoepfner (forthcoming), Longuenesse (1998), and Wolff (1995) have provided monograph-length takes on the metaphysical deduction of the categories.

⁶ As I discuss below, my reading emphasizes that insofar as these functions are *unities* of representation-ordering acts rather than representation-ordering acts themselves, the very same function can give unity to different kinds of representation-ordering acts. I should also note that I translate the '*gemeinschaftlich*' as 'communal' rather than 'common' because the latter translation seems to imply that the representations are ordered under a general (and therefore common to more than one object) representation, i.e., a concept. The original German leaves open under what kind of representation representations are ordered when they are ordered by representation-ordering acts united by the logical functions.

⁷ Kant's preferred term for the relevant conceptual representations is 'discursive' representations, which include concepts but also judgments that combine concepts, and inferences and syllogisms that combine judgments. I will tend to stick with Kant's terminology but resort to this less technical terminology at the beginning to help orient the reader.

⁸ Kant's preferred term for the relevant perceptual representations is 'intuitions.' Again, I will tend to stick with Kant's terminology but resort to this less technical terminology at the beginning to help orient the reader.

⁹ I follow Houston Smit in interpreting Kant as having a capacity relative conception of representation or *Vorstellung*. According to this conception, a representation is what is appropriately put to use by a subject of a capacity of representation in deeds imputable to this subject, viz., acts of representing (ms a). Accordingly, on this

On my view, the metaphysical deduction of the categories argues that the categories are generated by distinct exercises of the logical functions of the understanding. In one sort of exercise, these functions generate judgments that combine concepts according to the logical forms of judgment. In another sort of exercise, they generate acts of pure synthesis according to the categories that combine intuitions. On this reading, the metaphysical deduction therefore advances an account of the original acquisition of the categories, one in which we acquire these pure concepts of the understanding by exercising the logical functions of the understanding in order to unify the act of ordering perceptual representations under communal representations.

By exercising the very same logical functions, the understanding can generate judgments (that order conceptual representations or “manifolds of discursive representations” in general) and synthesized intuitions of things (that order perceptual representations or “manifolds of intuitions” in general). The categories are thereby generated in and through exercises of the logical functions to order certain representations. This reading will be qualified and elaborated in what follows, but that is the basic idea underpinning the interpretation for which I shall argue.

Before I spell out my own interpretation in more detail, I will first discuss the different kinds of readings of the metaphysical deduction in the literature. Then I will raise a common problem they all face and proceed to spell out my interpretation and how it addresses this problem. After raising this problem, I will make some methodological remarks concerning the standards and desiderata that plausible interpretations of the metaphysical deduction must meet. Finally, I begin to articulate my interpretation by discussing, following Dieter Henrich, the historical background

view a representation is not a mere mental state and not (as this term is typically used in contemporary philosophical parlance) a state that simply has intentionality (in virtue of bearing a two-place relation to what it is about or represents). Rather, it is something that occupies the middle relatum in a three-place relation between the subject of a capacity of representation and the represented object.

to Kant's concept of a deduction and the general structure of the argument of the metaphysical deduction.

1.2 Interpretations of the Metaphysical Deduction in the Literature

1.2.1 Taxonomy of Interpretations

Till Hoepfner has recently developed a helpful taxonomy of different readings of the metaphysical deduction according to how they read the key claim in A79/B104f, viz., that “the same function” provides unity to acts of synthesis (of intuitions) on the one hand and to acts of judgment on the other.¹⁰ The functions that provide unity to (a) the synthesis of intuitions and to (b) judgment can be identified with (1) acts of judgment, giving a *reductive* reading,¹¹ with (2) the categories, giving a *categorial* reading,¹² with (3) logical functions as guided by logical

¹⁰ James Van Cleve also provides a similar taxonomy of possible readings of the “same function” claim: “(a) synthesis is identical to judging, (b) synthesis is not identical to judging but *involves* it, (c) synthesis neither is nor involves judging but belongs to the same genus as judging” (2003, 87). Hoepfner complains that the second option is not a possible reading of an identity claim (ms a, 5n15). However, it does not seem to me that we need to understand the “same function” claim as claim that identifies judgment and synthesis. Instead, we can read it as claiming that a kind of judgment *constitutes* synthesis.

¹¹ Hoepfner attributes the reductive reading to Paul Guyer (2001, 319f) and John McDowell (2009, 30f, 70, 94f, 148, 260f) (ms a, 5n11). It seems that Martin Bunte also holds a version of the reductive reading insofar as he holds that distinguishing functions and forms “adulterates [*aberriert*] the original sense of the Kantian concept of function” (2016, 25).

¹² Hoepfner attributes the categorial reading to Johannes Haag (2007, 168-170, 309f.) and Wilfrid Sellars (2002, 406), (ms a, 5n12). *Pace* Hoepfner, it does not seem to me that Sellars holds a categorial reading. Sellars interprets the metaphysical deduction in such a way that it “can almost be described as the Transcendental Deduction and the Schematism in embryo” (2002, 406), for he thinks that here Kant tells us, in effect, that “intuitions of manifolds contain the very categories which can be found in the general concepts which we apply to these intuitions” (Ibid.). As such, he takes the metaphysical deduction to claim that intuitions contain the same content that is generally represented in the categories. Sellars distinguishes intuitions of manifolds from manifolds of intuition and interprets the metaphysical deduction as expressing the idea that intuitions of manifolds (given unity by the same functions that give unity to judgments) already contain the categories (2002, 406). Intuitions for Sellars then contain the categories, and one might think he holds that categories provide unity to intuitions. However, Sellars does not argue that categories also provide unity to judgments, which seems to be what is required of the categorial reading. In some ways, Sellars's reading seems closer to a reductive reading, for he notes, “It is essential that intuition is a species of *thought*, for any sense-datum like approach makes essential features of Kant's theory of knowledge unintelligible, e.g., the *Schematism*” (2002, 406). That is, Sellars seems to think that to solve the problem of subsumption in the schematism, we need to think of intuition as a species of judgment. What seems central to

forms, giving a *teleological* reading,¹³ with (4) a common genus of which both synthesis and judgment are species, giving a *generic* reading.¹⁴ To this taxonomy, we could add what we might call (5) the *common ground* reading, which identifies the functions with an activity of the understanding that (partially) grounds both acts of judgment and of synthesis. I turn to characterize briefly what is central to each of these readings.

The reductive reading centrally claims that the synthesis of intuitions reduces to a kind of judgment, thus privileging judgment amongst the acts of the understanding. The categorial reading centrally claims that the categories give unity both to judgment and to the synthesis of intuitions, thus giving the categories pride of place as what explains the unity of judgments and synthesis. The teleological reading centrally claims that the logical forms of judgment guide logical functions in both judgment and the synthesis of intuitions. The generic reading centrally claims that judgment and synthesis are different species of the same genus. Finally, the common ground reading centrally claims that the logical functions of the understanding are unifying activities of the understanding that unify both acts of judgment and of synthesis by grounding them. These different interpretations provide different ways of reading the argument of the metaphysical deduction and the way it relates the “functions” in the passage, the logical forms of judgment, and the pure concepts of the understanding.

Sellars’s interpretation of the metaphysical deduction in particular is that it holds this argument already addresses issues (by asserting while not yet fully arguing for them) that the Schematism and Transcendental Deduction take on in more detail (viz., how intuitions can be subsumed under the categories and how intuitions stand under the categories) by putting forth a view of intuitions as containing the categories.

¹³ Béatrice Longuenesse argues for such a view (1998, 199-204).

¹⁴ Hoepfner notes that Lorenz Krüger (1968, 340-2), Rolf-Peter Horstmann (1997, 72f), Henry Allison (2004, 153f; 2015, 177-79), and James Conant (2016, 114) all allude to this reading but do not elaborate it (ms a, 5n14). Van Cleve also alludes to this reading as the third option in his taxonomy (2003, 87). Hoepfner first proposed his version of the generic reading in (2011, 204).

1.2.2 A Common Problem for Extant Interpretations

Though these readings have helped further our understanding of the intricacies of the metaphysical deduction, my view is that none of them gives a fully satisfactory interpretation of this argument. Different interpretations face particular challenges,¹⁵ but I think that they all face a common deep problem. This problem is essentially a sin of omission,¹⁶ one that consists of failing to give a satisfactory account of the origin of each of the categories. As noted above, Kant holds that the metaphysical deduction is an argument that seeks to establish the *a priori* origin of the categories in general. It is therefore an argument that advances an account of the origin of the categories, of how the understanding generates these pure concepts of the understanding. This fact relates the metaphysical deduction of the categories to another systematic aspect of Kant's critical philosophy that Kant is at pains to emphasize in responding to contemporary critics like Johann Augustus Eberhard: the original acquisition of the categories.

1.2.2.1 *The Original Acquisition of the Categories*

Kant emphasizes in his philosophy that the categories have a unique origin. In particular, they are not innate representations. As he writes in *On a Discovery, according to which any new Critique of Pure Reason is made Superfluous through an Older* in response to the Leibnizian philosopher J. A. Eberhard's criticisms, "The *Critique* allows absolutely no implanted or innate *representations*. One and all, whether they belong to intuition or to concepts of the

¹⁵ I shall discuss these challenges in more detail when I compare the different interpretations with respect to certain standards and desiderata in the fifth chapter.

¹⁶ I thank Smit (in conversation) for this way of putting the point.

understanding, it considers them as *acquired*” (Disc. 8:221).¹⁷ All representations in Kant’s critical philosophy are therefore acquired rather than innate. However, he notes that some of our representations have a special (non-empirical) acquisition. These are the representations of “the form of things in space and time [*die Form der Dinge im Raum und der Zeit*]” and “the synthetic unity of the manifold in concepts [*die synthetische Einheit des Mannigfaltigen in Begriffen*],” which Kant holds have “an original acquisition (as the teachers of natural right call it), and thus of that which previously did not yet exist at all, and so did not belong to anything prior to this act” (Ibid.).¹⁸ The reason Kant cites for why the acquisition of these representations is original is that “our cognitive faculty takes neither of these [representations] from objects as given in them in themselves, rather it brings them about a priori out of itself”¹⁹ (Ibid.). That is, these representations cannot be acquired from objects (as empirical representations are). Rather, they are acquired insofar as the subject itself brings them about.

Kant admits that in this original acquisition, there is something innate to the subject, but it is not the representations themselves. Rather, it is the *ground of the possibility of these representations* that is innate. This ground explains how the pure intuitions of space and time and the pure concepts of the understanding arise as they do from the subject’s representational activity (when it is affected by objects) and how the subject relates these representations to objects that are not given prior to the representations (insofar as objects can only be given in part through the originally acquired representations of space and time). In Kant’s own words, “There

¹⁷ “Die Kritik erlaubt schlechterdings keine anerschaffene oder angeborene Vorstellungen; alle insgesamt, sie mögen zur Anschauung oder zu Verstandesbegriffen, nimmt sie als erworben an” (Disc. 8:221).

¹⁸ “eine ursprüngliche Erwerbung (wie die Lehrer des Naturrechts sich ausdrücken), folglich auch dessen, was vorher gar noch nicht existirt, mithin keiner Sache vor dieser Handlung angehört hat” (Disc. 8:221).

¹⁹ “denn keine von beiden nimmt unser Erkenntnißvermögen von den Objecten, als in ihnen an sich selbst gegeben, her, sondern bringt sie aus sich selbst a priori zu Stande” (Disc. 8:221).

must indeed be a ground for it in the subject, which however makes it possible that these representations arise in this way and not otherwise, and that they are related to objects that are not yet given, and this ground at least is innate” (*Disc.* 8:221).²⁰

Although the subject itself innately contains the ground of these representations, Kant stresses that the representations themselves cannot be brought forth by the subject itself and so are not innate. The reason Kant gives for this claim is that “impressions are always required in order to first determine a representation of an object (which is always a unique action [*eigene Handlung*])” (*Disc.* 8:222).²¹ This is a claim Kant also emphasizes in the *Critique* in the section titled, “On the Principles of a Deduction” writing, “the impression of the senses is the first occasion for opening the entire power of cognition to them and for bringing about experience” (A86/B118).²² Despite the need for impressions as an occasion for generating the pure intuitions of space and time, Kant holds that the innate ground of their possibility is “the mere *receptivity* peculiar to the mind, when it is affected by something (in sensation) to receive a representation that in accordance with its subjective constitution” (*Disc.* 8:222).²³ In this way, when the mind is affected and receives impressions, the formal intuition of space arises as an originally acquired representation (of the form of outer things in general [*Gegenstände überhaupt*]) whose ground nonetheless (as mere receptivity of the subject) is innate. This original acquisition of space precedes the acquisition of determined concepts of things, that “are in accordance with this form

²⁰ “Es muß aber doch ein Grund dazu im Subjecte sein, der es möglich macht, daß die gedachten Vorstellungen so und nicht anders entstehen und noch dazu auf Objecte, die noch nicht gegeben sind, bezogen werden können, und dieser Grund wenigstens ist angeboren” (*Disc.* 8:221).

²¹ “es bedarf immer Eindrücke, um das Erkenntnißvermögen zuerst zu der Vorstellung eines Objects (die jederzeit eine eigene Handlung ist) zu bestimmen” (*Disc.* 8:222).

²² “die Eindrücke der Sinne den ersten Anlaß geben, die ganze Erkenntniskraft in Ansehung ihrer zu eröffnen, und Erfahrung zu Stande zu bringen” (A86/B118).

²³ “es ist die bloße eigenthümliche Receptivität des Gemüths, wenn es von etwas (in der Empfindung) afficirt wird, seiner subjectiven Beschaffenheit gemäß eine Vorstellung zu bekommen” (*Disc.* 8:222).

[*dieser Form gemäß sind*] of outer *Gegenstände*” (Ibid.) As Kant puts it, “Thus arises the formal intuition called space, as originally acquired representation (the form of outer *Gegenstände* in general), the ground of which (as mere receptivity) is nevertheless innate, and whose acquisition long precedes the determined *concept* of things that are in accordance with this form”²⁴ (*Disc.* 8:222).

In a parallel manner, the categories are originally acquired rather than innate, but the ground of their possibility is not the subject’s receptivity, but rather “the spontaneity of thinking (conformity with the unity of apperception)” (*Disc.* 8:223).²⁵ For Kant then, the pure representations of space, time, and the categories (which form the subject matter of the Transcendental Aesthetic and Analytic) are representations that are acquired originally. They are acquired in this way insofar as the ground of the possibility lies in the subject of a capacity of representation. This possibility, however, is only actualized when the subject receives impressions by being affected by *Gegenstände*. This affection actualizes the subject’s capacities for representation and cognition as powers that determine, as their characteristic effects, representations and cognitions of *Gegenstände*. For our present purposes, what matters is that Kant explicitly claims that the pure concepts of the understanding have an origin that is different from (and prior to)²⁶ that of determined concepts of things, including empirical concepts. These derivatively acquired concepts are presumably formed by reflection on representations already

²⁴ “So entspringt die formale Anschauung, die man Raum nennt, als ursprünglich erworbene Vorstellung (der Form äußerer Gegenstände überhaupt), deren Grund gleichwohl (als bloße Receptivität) angeboren ist, und deren Erwerbung lange vor dem bestimmten Begriffe von Dingen, die dieser Form gemäß sind, vorhergeht” (*Disc.* 8:222).

²⁵ “[die] Spontaneität des Denkens (Gemäßheit mit der Einheit der Apperception)” (*Disc.* 8:223).

²⁶ Kant notes that the acquisition of determined concepts of things is posterior insofar as it already presupposes the categories as “universal transcendental concepts [*sie schon allgemeine transcendentale Verstandesbegriffe voraussetzt*]” (*Disc.* 8:222f).

given.²⁷ I propose that we interpret this unique origin by taking at face value Kant's claim that a representation of an object "is always a unique action [*jederzeit eine eigene Handlung*]" (*Disc.* 8:222) in our interpretation of how the categories are acquired. That is, I propose that a satisfactory account of the original acquisition of the categories consists of an account of each of the *eigenen Handlungen*, the unique actions, by means of which the understanding brings forth each category. I argue that extant interpretations fail to provide such an account, and it is a central aim of the present project to provide precisely such an account.

To recapitulate, Kant claims that the metaphysical deduction of the categories seeks to establish the a priori origin of the categories in general. My suggestion is that we interpret Kant as holding that this origin consists in their being acquired in and through unique actions on the part of the thinking subject. As such, these two aspects of Kant's philosophy (the metaphysical deduction of the categories and their original acquisition) are inherently intertwined. The former is an argument that legitimizes the categories by tracing their origin. The latter is an account of their origin in and through the actions of the subject of thinking. Accordingly, it seems that we can draw an interpretive constraint or standard for readings of the metaphysical deduction: any fully satisfactory interpretation of the metaphysical deduction must provide an account of how the categories are generated or originally acquired in unique actions of the subject of thinking. Meeting this standard requires giving an account of the nature of the "*eigenen Handlungen*" or

²⁷Cf. the *Jäsche Logic* where Kant notes that the logical *actus* through which concepts are generated I argue that extant interpretations of the metaphysical deduction fail to meet this standard because they fail to give an account of the unique actions that generate each category. In particular, there are no satisfactory accounts of the actions that generate the third categories under each heading (totality, limitation, community, and necessity). Without such an account, I argue, we are not in a position to understand fully the origin of the categories. If I'm right, this means that without such an account we are not in a position to provide a metaphysical deduction of the categories. As to their form (of generality) is the act of comparison, reflection, and abstraction (*JL* 9:93-5). This act is the means by which we realize the form of generality in our concepts (their being common to more than one object).

"unique actions" by means of which all of the categories are generated, for such an account renders intelligible how the categories originate from actions of the understanding.

I argue that extant interpretations of the metaphysical deduction in the literature fail to meet this standard because they fail to give an account of the unique actions that generate each category. In particular, there are no satisfactory accounts of the actions that generate the third categories under each heading (totality, limitation, community, and necessity). Without such an account, I argue, we are not in a position to understand fully the origin of the categories. If I'm right, this means that without such an account we are not in a position to provide a metaphysical deduction of the categories.

1.2.2.2 The Original Acquisition of the Third Categories

The need to give a more sustained treatment of the origin of the third categories than interpreters have up until now arises from the fact that the third category exhibits some additional structure that the first and second categories do not seem to have. As Kant notes in section 11 of the Analytic of Concepts (a section he added in the second edition of the *Critique*), the third category under each heading "arises [*entspringt*] from the combination of the second with the first in its class" (B110).²⁸ That is, the third category under each heading contains the first and second categories as constitutive parts. Kant is adamant that this complexity of the third categories is not a reason to think they are pure derived [*abgeleitet*] concepts, like the predicables, such as force, action, passion (A82/B108). They are, rather, true *Stammbegriffe*, fundamental or ancestral concepts of the understanding. The reason Kant gives for the

²⁸ "*die dritte Kategorie allenthalben aus der Verbindung der zweiten mit der ersten ihrer Klasse entspringt*" (B110).

fundamental status of the third categories as pure *Stammbeuriffe* is that “the combination [*Verbindung*] of the first with the second, in order to bring forth the third, requires a special act [*besonderen Actus*] of the understanding, that is not identical [*einerlei*] with that which is exercised [*ausgeübt*] in the first and second [*beim ersten und zweiten*]” (B111).²⁹ In other words, Kant explicitly claims that the origin of the third categories is more complex than that of the first two and that it consists of the first two categories being combined in a particular way.³⁰

To my knowledge, few commentators have taken up the issue of how to interpret this special act of the understanding at all. The ones that do tend to do so for purposes other than Kant’s,³¹ to mention it in passing,³² or to give a short treatment of this special act, at most discussing how it generates one category.³³ In the extant literature then nobody has given a

²⁹ “*die Verbindung der ersten und zweiten, um den dritten Begriff hervorzubringen, erfordert einen besonderen Actus des Verstandes, der nicht mit dem einerlei ist, der beim ersten und zweiten ausgeübt wird*” (B111).

³⁰ A parallel text can be found in a letter to Schultz, dated the 17th of February, 1784. Here Kant writes, “*Die dritte Kategorie nämlich entspringt zwar freilich durch die Verknüpfung der ersten und zweyten, aber nicht blos durch Zusammennehmung, sondern eine solche Verknüpfung, deren Möglichkeit selbst einen Begrif ausmacht und dieser Begrif ist eine besondere categorie* [The third category arises indeed through the connection of the first and the second, but not through mere taking together, rather through such a connection whose possibility itself makes up a concept, and this concept is a particular category]” (Br. 10:366). Kant then explicitly claims that generating the third category requires something over and above the conjunction of the first two categories (viz., a combination whose very possibility makes up a particular category). This explains why the third category is not always applicable where the first two are. Kant then states what is needed for the combination whose possibility makes up a third category: “*aber auch da, wo die dritte categorie anwendbar ist, enthält sie immer noch etwas mehr, als die erste und zweyte für sich und zusammen genommen, nämlich die Ableitung der zweyten aus der ersten*” (Br. 10:367). In other words, Kant claims that each third category contains not only the first two corresponding categories as its parts but also connects these two categories such that the second is derived from the first. In other words, each third category is the concept of something that falls under the first category but only under the condition that it falls under the second category. Because the content of the third category is such that if it falls under the first category, then it falls under the second, the third category contains the derivation of the second from the first. I discuss this in far more detail in the fourth chapter, which focuses on my account of the original acquisition of the categories.

³¹ For example, McDonough, Richard (2014, 47) and Lewis, J.J. (2010, 195f).

³² For example, Rosenberg, Jay (2005, 106) and Smyth, Daniel (2014, 6).

³³ For example, Watkins, Eric (2011, 43), Schulting, Dennis (2012, 121), Waxman, Wayne (2013, 294f). Shabel, Lisa: “Kant’s Philosophy of Mathematics”. In: *Stanford Encyclopedia of Philosophy* 2016. Shabel tentatively claims that “This special act is presumably the *synthesis* that Kant describes as a function of both imagination and understanding, and which it is the business of the full theory of judgment—including the Transcendental Deduction and the Schematism—to explain,” citing Longuenesse (1998). However, there is no textual support for such a broad interpretation of the special act of the understanding, for as I argue below, it specifically concerns the origin and non-derivative status of the third categories. Furthermore, Longuenesse does not discuss the special act in her work.

sustained treatment of what this special act consists of and of how exactly the third categories under each heading are derived from the first two. Without such an explanation of the origin of the third categories, however, I submit we are not in a position to understand the origin of each of the pure concepts of the understanding and therefore not in a position to understand how tracing their origin provides a deduction of them.

1.2.3 My Proposed Interpretation

I take these passages concerning the generation of the third category seriously and suggest that they point us towards a novel way of understanding the *eigenen Handlungen* in which each of the categories is generated. Consider once again the claim that the generation of the third category from the combination of the first two requires a “special act of the understanding” (B111). The force of the “special,” of “*besonderen*” could be read as saying that the third category is wholly unique in being generated in this way. However, what is centrally at issue for Kant here is the fundamental status of the third category, its claim to be a *Stammbegriff* of the understanding. Moreover, he notes that there are acts of the understanding that generate the first and second categories that are not identical to the act that generates the third category (which explains why the third is fundamental). The text thus suggests that there are acts that, although not identical with the third category-generating act, are similar to it in generating the first and second categories in a way that explains why they are fundamental or *Stammbegriffe*. In other words, it seems more plausible to think that the force of the “*besonderen*” (the specialness of the “special act”) is that the act that generates the third categories is *special like the acts that*

As I note in the third chapter, I agree with Watkins’s, Schulting’s, and Waxman’s treatment of the special acts of Relation, Modality, and Quantity so far as they go. However, I add and stress that these acts consist of a certain exercise of the third corresponding logical function.

generate the first and second categories: special in being an irreducible act by which we generate the categories and which explain why they are *Stammbeuriffe*.³⁴ As such, I propose we read this B111 “special act” passage as suggesting a view of the original acquisition of the categories. On this view, categories are generated by fundamental, irreducible (and so special) acts that the understanding as a capacity to judge performs. These acts explain how the original acquisition, i.e., the distinct pure origin of the categories, can constitute a deduction of these concepts. On my view, these special category-generating acts consist of exercises of logical functions as “unities of the act of ordering several representations under a communal one” (A68/B93) insofar as they are employed to unite the acts of ordering certain manifolds of representations.

As a way of briefly locating these special acts within the economy of activities of our cognitive capacities (something I discuss in more detail in the third chapter), I claim that they are posterior to (a) our sensibility’s being affected such that we receive impressions and (b) the understanding’s self-affectation of our sensibility in the transcendental figurative synthesis of the imagination *merely* “in accordance with [*gemäß*] the categories”³⁵ (B152) but prior to (c) judgments of experience that employ these categories to determine *Gegenstände* given to us in sensibility.³⁶ Like the transcendental figurative synthesis of the imagination then, the special,

³⁴ Similarly on my view, the inferential acts by means of which reason generates its ideas are special insofar as they are irreducible, explanatory fundamental acts that generate a corresponding fundamental concept, not achievable by other means. I thank Marco Santi (in conversation) for first suggesting to me that the generation of the second category constitutively employs the first category (like the third constitutively employs the first two).

³⁵ This is in contrast to the synthesis *according to* [*nach*] the categories, which is represented generally in the pure concepts of the understanding (A78/B104). I discuss this distinction between kinds of syntheses in more detail in chapters four and five.

³⁶ In thinking of these priority relations, I find it useful to distinguish between the way we humans, subjects of discursive understanding and spatiotemporal sensibility, generate the categories and how any subject of such a discursive understanding, with a different sensibility, generates the categories. I suggest that (a), although the way we humans generate the categories presupposes a transcendental *figurative synthesis*, any subject of discursive

category-generating acts are part of the deep structure of the workings of our common human understanding. This deep structure grounds the possibility of experience. As such, it is not an act that the transcendental philosopher performs in doing transcendental philosophy.³⁷ Given this, the unique category-generating acts are not temporally determined with respect to one another and so cannot be temporally ordered. They nonetheless exhibit a metaphysically explanatory ordering in terms of how they serve as conditions for the possibility of experience. For certain acts presuppose others and require them for their own possibility, while these latter acts do not presuppose the former (although these prior acts may be undertaken for the sake of also performing all posterior ones, insofar as the understanding performs the prior acts for the sake of making experience possible, which requires the posterior acts).³⁸ Moreover, although these category-generating acts are fundamental for Kant, I shall argue that we need not understand them as wholly *sui generis* discursive acts. Rather, they can be seen as instances of a real use of

understanding, in generating the categories, also requires some corresponding impression and affection of its sensibility as well as some corresponding transcendental synthesis of the manifold given by the affection of that sensibility, and that (b) the special acts by means of which the pure categories are generated are the same for us humans and other non-spatiotemporal subjects of understanding. Given this, I will focus my discussion on these special acts by means of which the categories are generated (by the subject of any discursive understanding), thinking of them in abstraction from the contribution of any particular sensibility (including our own spatiotemporal one). By doing so, I hope to be able to avoid thorny issues concerning the transcendental schemata, which as transcendental time-determinations, concern our particular spatiotemporal sensibility and how spatiotemporal sensible particulars can be subsumed under the purely intellectual pure concepts of the understanding. It must be admitted, however, that discursive subjects with non-spatiotemporal sensibilities must have something analogous to our transcendental schemata, which allow the subsumption of their non-spatiotemporal sensible intuitions under the same concepts.

³⁷ I follow Houston Smit in thinking of the project of the first *Critique* as continuous with Descartes's project in the *Meditation on First Philosophy*. This is part of an interpretive strategy Smit implements in his *Kant's Theory of Cognition* (ms a). According to this view of the project of the critique, it is an essentially first-person endeavor that one engages in by making use of one's cognitive capacities, following Kant's guidance, itself based on his own having gone through this first-personal endeavor.

³⁸ More will be said about this explanatory ordering in the coming chapters and how it relates different aspects of Kant's philosophy.

the reflective power of judgment.³⁹ In this use, sensible particulars in general are given to us and we exercise the real power of judgment to generate from these particulars certain real discursive contents that determine the class of real things in general, the pure concepts of the understanding.⁴⁰

My interpretation of the metaphysical deduction thus relies on a novel reading of the original acquisition of the categories. This interpretation is an instance of the common ground reading in the taxonomy of readings given above.⁴¹ It interprets “the same functions” that give unity to both judgment and the (pure) synthesis of intuitions according to *[nach]* concepts⁴² as the logical functions of the understanding, which are distinct from acts of judgment and of

³⁹ Kant notes in the *Jäsche Logic* that there are two species of the power of judgments: the determining [*bestimmend*], which goes from the universal to the particular, and reflecting [*reflectierend*], which goes from the particular to the universal” (*JL* S81 9:132). He gives us more detail in the third *Critique*. He notes that the power of judgment in general “*Urteilstkraft überhaupt*” is the capacity to think the particular as contained under the universal (*KU* 5:179). Then he characterizes in more detail the two species of power of judgment. In the determining power of judgment, “the universal (the rule, the principle [*Prinzip*], the law) is given” which is then used by the power of judgment to subsume the particular under it and so determine the particular as falling under the given universal. (*KU* 5:179). In the reflecting power of judgment, “the particular is given” and the understanding seeks to find a universal that one does not yet possess (*Ibid.*). These two powers of judgment thus have opposite inputs and outputs. The determining power of judgment takes a given universal as input and generates a certain particular determined under that universal as output. The reflective power of judgment takes a given particular as input and generates a universal (one did not have) from that particular as output.

⁴⁰ An alternative view of these category-generating acts is as acts of conception in which the understanding grasps these pure concepts directly in acts of conception. This alternative reading does not require a real use of the power of judgment but of the pure understanding itself as a capacity to grasp discursive representations. In some ways, this is a more attractive alternative, but I am unsure that acts of conception have sufficient structure to be understood applications of the logical functions to intuitions.

⁴¹ Michael Wolff seems to argue for a version of this reading, for he notes, “According to Kant’s, as it is laid down in the third *Leitfaden* chapter of the *Critique of Pure Reason*, forms of judgment and categories are something, that arises pairwise from the same functions of the understanding” (1995, 29). My interpretation of the metaphysical deduction therefore has perhaps the most in common with Wolff’s. However, as will be shown in subsequent chapters, I disagree with Wolff in some respects and go beyond him in giving a detailed account of the specific exercises of the logical functions by means of which all of the categories originate. Similarly, Klaus Reich also seems to endorse a common ground reading, noting that “the products of the same acts of the understanding are...the logical form of a judgment...as well as the transcendental content of its representations” (1992, 9).

⁴² By this I don’t mean to claim that all acts of synthesis of intuitions are grounded in the exercise of the logical functions. In particular, any instance of an empirical synthesis or of a synthesis of the reproductive imagination would not be a synthesis grounded in the logical functions. These would be syntheses *merely in accordance with* concepts, but not *according to* them. I discuss this distinction in more detail in chapter 5 when I relate my reading to the text of the metaphysical deduction.

synthesis but the common ground of both of these acts (when they are exercised in ordering different manifolds of representations). My reading is perhaps closest to Longuenesse's teleological reading of the metaphysical deduction in emphasizing the centrality of logical functions as a common ground of the unity of acts of judgments and of synthesis of intuitions. However, it does so without holding, as Longuenesse does, that the logical forms' guiding the logical functions is central to the argument of the metaphysical deduction. Rather, it holds that what is key is simply that the logical functions are the common ground of different kinds of acts of the understanding.

In emphasizing that there is a structure common both to acts of judgment and to synthesis, my view resembles Hoepfner's. However, Hoepfner and I differ in our account of what the relevant common structure is. On my view, this common structure consists of both acts of judgment and synthesis being grounded in exercises of the twelve elementary logical functions of thinking. By contrast, Hoepfner holds that this common structure consists of both of these acts being species of the same generic acts of representing variety, homogeneity, and unity, all of which he holds presuppose a relation to sensibility (ms a, 31f; ms b, 22; 2011, 208, 211-14).⁴³A

⁴³ It is a virtue of Hoepfner's view that he systematically assigns to each of these generic acts of representation (and to the presupposition of sensibility of these acts) one of the headings of Kant's tables (ms a, 31; ms b, 24-32; 2011, 211-4): (i) to acts of representing variety, he assigns quality, (ii) to acts of representing homogeneity he assigns quantity, (iii) to acts of representing unity he assigns relation, and (iv) to the presupposition of a relation to sensibility he assigns modality.

For Hoepfner then (ms a; ms b; 2011):

The act of using a subject concept in a judgment and the synthesis of apprehension are species of (i) fundamental generic qualitative act of representing *variety*: (a) the subject concept of a judgment represents specific (and so specifically *different*, i.e., *varying*) objects while (b) the synthesis of apprehension represents a *variety* of sensible qualities.

The act of using a predicate concept in a judgment and the synthesis of reproduction are species of (ii) the fundamental generic quantitative act of representing *homogeneity*: (a) the predicate concept of a judgment represents objects as the same in kind (and so *homogeneous*), (b) the synthesis of reproduction represents parts of a mereological whole as *homogeneous*.

The act of combining discursive representations in a judgment and the synthesis of recognition are species of (iii) the fundamental generic relational act of representing *unity*: (a) the act of combining discursive

consequence of Hoepfner's generic reading is that the commonality in structure remains at the level of the four headings, but e.g., the categorical logical form and the category of substance are not species of the same categorial generic act.⁴⁴ By contrast, on my account, the commonality in structure between acts of judgments and of pure synthesis of intuitions according to concepts reaches the three elements under each of the four headings. For in my view the same elementary logical functions underpin particular logical forms of judgments and particular acts of pure synthesis of intuitions according to concepts.

Having outlined and situated in the literature my proposed interpretation of the metaphysical deduction, I now turn to propose certain standards and desiderata for interpretations of this argument.

representations in a judgment represents a *unity* in and of kinds and properties of objects, (b) the synthesis of recognition represents the *unity* of individual objects and their properties.

These generic acts always have a (iv) presupposition of a relation to sensibility. Acts of judgment depend essentially on (a) reference to sensible intuitions, while acts of synthesis depend essentially on (b) a synopsis of sense impressions.

I find Hoepfner's interpretation to be insightful in the way it systematically brings resources from Kant's philosophy together. However, I disagree with the way he arranges some of these systematic resources, some of which I will briefly note. For one, Hoepfner associates predicate concepts with quantity, but given that quantitative determination of judgments concerns how we think of the subject in judgment (as universal, particular, and singular), this seems like an unnatural pairing. Furthermore, Hoepfner thinks of the acts of judgment, analytic unity and analysis as quite close together, thinking of an act of analysis as an act of bringing various representations under a concept (ms a, 16f). I'm inclined to think that there are important distinctions to be drawn between the act of analysis (which following Smit, I think can be of both intuitions and of concepts), and the analytic unity of concepts and the act of judgment.

⁴⁴ Hoepfner tells me (in conversation) that this makes sense to him given that he conceives of the different elements of the table of judgments as variants of discursive acts of judgment, whereas he thinks of the different elements of the table of categories as aspects of a complex act that comprises all of them. I think this is a helpful thing to say but add that this does not preclude us from seeing the same functions as grounding these different kinds of acts (variants and aspects).

1.3 Standards and Desiderata for Interpretations of the Metaphysical Deduction⁴⁵

To be compelling, any reading of the metaphysical deduction must meet certain standards and desiderata, both textual and philosophical. Plausibly, it seems that any interpretation of the metaphysical deduction must meet the following standards:

(1) make sense of the text of the metaphysical deduction proper, i.e., the *Leitfaden* passage at A79/B104f,

(2) be consistent with other texts that discuss what the metaphysical deduction accomplishes,⁴⁶

(3) give an appropriate role to the metaphysical deduction within the project of the Transcendental Analytic as a whole.

These standards arise from the fact that an adequate reading of the metaphysical deduction must do justice not only to texts that explicitly discuss it but also to the argumentative place it must occupy in the *Critique*. The reason to meet (1) is straightforward. A79/B104f is the *Leitfaden* or "same function" passage and the culmination of the metaphysical deduction of the categories. Thus, it is central to any interpretation of the metaphysical deduction that it gives a thorough and satisfactory treatment of this text, making sense of the argument Kant gives in that passage. Of key relevance (as mentioned above), will be how each interpretation interprets the

⁴⁵ I am very grateful to Mark Timmons for helpful conversations concerning the strategy of arguing for my view by making it clear what success constitutes for an interpretation (what standards/desiderata must be met) and then clearly arguing that my interpretation is able to do this.

⁴⁶ These texts include the one in the transcendental deduction when he refers to the metaphysical deduction (B159) and those in the Transcendental Dialectic in which Kant discusses what he accomplished in the Transcendental Analytic. These are in the second section of the introduction to the Transcendental Dialectic as a whole, titled "On pure reason as the seat of transcendental illusion [*Von der reinen Vernunft als dem Sitze des transzendentalen Scheins*]" (A298-309/B355-66) and in the second section of the first book of the transcendental dialectic, titled "On the transcendental ideas [*Von den transzendentalen Ideen*]" (A321/B378).

"same function" in the *Leitfaden* passage, the function that gives unity both to acts of judgment and to acts of synthesis (according to concepts).

The reason to meet (2) is also straightforward. The interpretation of the argument of the metaphysical deduction and what it accomplishes should be consistent with Kant's own explicit take on what this argument achieves and how it takes place. Therefore, in addition to the text itself, Kant's observations of the argument place constraints on an adequate interpretation of the metaphysical deduction.

Finally, the reason to meet (3) is to locate satisfactorily the argument of the metaphysical deduction (and the project of the *Leitfaden*) within the context of other arguments Kant gives in the *Transcendental Analytic*. Of particular importance is that any plausible interpretation of the metaphysical deduction makes clear how this argument relates (at least broadly speaking) to that of the transcendental deduction. An adequate interpretation of the metaphysical deduction should have it do sufficient argumentative work, but not too much, leaving room for the argument of the transcendental deduction to take place while (presumably) still holding that this latter argument presupposes the former, metaphysical one.

In order for an interpretation of the metaphysical deduction to be acceptable, it must meet these standards. However, once an interpretation meets those standards, there are still different desiderata that count in favor of interpretations that meet them. These include:

(A) explanatory power: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it helps explain why and how Kant employs and relates the logical functions, the logical forms, and the categories in the metaphysical deduction.

(B) charity: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it avoids attributing misguided or mistaken views to Kant and construes it as an insightful argument.

(C) fruitfulness: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it helps us to understand other aspects of Kant's philosophy better.

(D) unification: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it allows us to unify our understanding of different activities of our higher cognitive capacity as a whole (constituted by reason, understanding in the narrow sense, the power of judgment, and a certain capacity of pure productive imagination).

Together then these standards and desiderata provide a framework with which to evaluate interpretations of the metaphysical deduction of the categories. One of the main goals of this dissertation is to argue that my interpretation meets all these standards and all these desiderata and thereby is to be preferred to other extant interpretations in the literature.

I turn now to develop in earnest my proposed interpretation of the metaphysical deduction. I begin by noting the general direction that my interpretation will take. In doing this, I follow an interpretive hypothesis proposed by Dieter Henrich. This proposal holds that we need to understand Kant as working with a historically informed and highly technical notion of a deduction. By keeping in mind that the metaphysical deduction is meant to be a deduction in this rich sense, I aim to provide an illuminating interpretation of the metaphysical deduction.

1.4 On Kant's Notion of a Deduction

Pace Hoepfner, I do not think that the text itself (with the help of related passages) provides all we need to understand the metaphysical deduction (ms a, 1). Instead, in making sense of the

kind of argument the metaphysical deduction is supposed to be, I follow Dieter Henrich in emphasizing that Kant is working with a notion of a deduction that is not the same as our own (which is something like a syllogistic proof in which the conclusion is logically deduced from the premises). Instead, Kant's notion stems from a historical legal tradition (1989, 30-40). Ultimately, the proof of whether this interpretive hypothesis is misguided or well-conceived is, as it were, in the pudding of whether employing it helps us make sense of the argument of the metaphysical deduction and the role it plays in Kant's critical philosophy as a whole. I aim to show in the following sections that pursuing this interpretive hypothesis helps my interpretation meet standards **(1)** and **(3)**.

1.4.1 Henrich on the Historical Background to the Notion

Henrich convincingly argues that the notion of a deduction Kant uses stems from historical legal documents called *Deduktionsschriften*. The constitutive aim of these documents was to adjudicate legal controversies among numerous rulers of independent territories, city republics, and other constituents of the Holy Roman Empire.⁴⁷ Henrich notes that most legal controversies for which such *Deduktionen* or deductions were provided concerned inheritance of territories, legal succession in reigns, etc. and that in the deductions, a story concerning how the claim had originated and been maintained through generations was given. A deduction in this historical sense then is an argument that justifies a controversial legal claim in the face of that claim's being challenged by an opponent in court. It is therefore an argument intended to justify a claim to an acquired right about the legitimacy of possession or use. Moreover, it serves this

⁴⁷ Henrich notes that Kant was familiar with the practice of deduction writing as a result of his being a librarian of the royal library in Königsberg for six years and having to check the stock of the library (including its many *Deduktionsschriften*) (1989, 33).

legitimizing function insofar as it explains the origin of a claim to an acquired right. A deduction proceeds to trace the origin of this claim to a *factum* (a deed, i.e., a fact and action) in virtue of which this right is acquired such that the rightfulness of the possession or the usage becomes evident even in the face of the challenge (1989, 35). For example, the right to carry an academic title originates from the action of successfully passing the relevant examinations, and the right to a particular good (e.g., a house) originates in purchasing it via a valid contract or inheriting it by a valid last will (Ibid.).

To recapitulate, a deduction in this historical, legal sense essentially legitimizes the claim to a right in the face of an objection in court by explaining the origin of the claim by tracing it to a *factum*. There thus seem to be three key aspects to a deduction in this sense: (1) a controversial claim that has been challenged in court (and which requires a defense), (2) a defense of this claim which proceeds by tracing the origin of the claim, (3) a *factum* in which the claim originates. In a legal deduction, this explanation of the origin consists of a “telling of a story [*Geschichtserzählung*]” or *species facti*, which answers the question of fact, *quid facti*. Then on the basis of certain aspects of this fact, a proof of (and answer to) the question of right, *quid juris*, is provided by focusing on those aspects of the origin by virtue of which the relevant right is bestowed (1989, 36).⁴⁸

Henrich suggests that the juridical metaphors that permeate the *Critique* (like the critique of pure reason being a “court of justice” (e.g., Axif, A236/B295, and A751/B779) indicate that the argument of the *Critique* as a whole has the shape of an argument in a philosophical dispute in

⁴⁸ Kant himself uses the terminology of *quid juris* and *quid facti* in a section in the Transcendental Analytic titled, “On the principles of a transcendental deduction in general [*Von der Prinzipien einer transzendentalen Deduktion*]” (A84/B116).

which the claim of reason to have “synthetic *a priori* knowledge of objects” has been called into question (1989, 38). Henrich thereby holds that Kant’s *philosophical* deductions (modeled on legal deductions) take the shape of a defense of (1) a controversial claim of reason to have synthetic *a priori* knowledge, (2) a defense of this claim by tracing the origin of the claim, and (3) a *factum* in which this claim originates and to which it is traced. For Henrich then, the transcendental deduction of the categories, in particular, takes the shape of a deduction of (1) a controversial claim of reason to have synthetic *a priori* knowledge of objects, which has been challenged by a skeptic, (2) a defense of this claim by tracing the origin of the claim, i.e., the origin of the categories’ claim to have a legitimate application in our *a priori* cognition of objects, and (3) a *factum* in which this claim originates (which for Henrich is the unity of apperception) (1989, 37).⁴⁹

As Henrich helpfully highlights, Kant had good reason to think that his audience at the time of writing would understand his transference of the term ‘deduction’ from its original legal context to a philosophical one. He could not have foreseen that the widespread usage of this technical term would become obsolete when the Holy Roman Empire was banished (1989, 33). Given Kant’s assumption that his audience would be familiar with this legal notion of a deduction, Kant’s notion of a philosophical deduction is an argument that is alien to a contemporary reader without knowledge of the historical background. The uninitiated contemporary reader is thus likely to assume mistakenly that Kant’s deductions are more formal

⁴⁹ The other *facta* Henrich claims Kant employs as origins in his philosophical deductions are “the consciousness of space and time as such, and “the moral law as a fact of reason” (1989, 37). Though he does not discuss how these serve as *facta* in deductions in detail, these presumably explain and legitimate our claim to *a priori* cognition of geometric and mathematical truths and of morality.

arguments (syllogistic proofs where the conclusion is logically implied by the premises) and is therefore likely to be seriously misled about the nature and goals of these arguments.⁵⁰

Henrich does a great job of enriching the notion of deduction with which Kant operates: one that has a historical legal background and essentially consists of the legitimation of a claim to a right in response to an objection by explaining how that claim originates in a *factum*. However, I think we need to go beyond Henrich in articulating how it is that Kant transfers this notion from its legal context to that of his critical philosophy. For one, Henrich focuses on the transcendental deduction, saying nothing of the metaphysical deduction. As such, we need to be more precise than Henrich is in our understanding of (1) what claim(s) are being legitimized in Kant's philosophical deductions, (2) what origin is appealed to in these different legitimations, (3) what the *factum* in question is. In doing this, we need to pay special attention to the way in which the metaphysical and transcendental deductions of the categories are both deductions (and indeed, of the same concepts: the categories) that nonetheless constitute different projects that accomplish different argumentative work within the Transcendental Analytic. Furthermore, I think that Henrich's account of 1) the claim being defended (2) the relevant origin, and (3) the relevant *factum* of the transcendental deduction faces worries. I now turn to articulate these worries.

1.4.2 Problems with Henrich's Take on Kant's Philosophical Deductions

According to Henrich's interpretation of the transcendental deduction, (1) the controversial claim being defended is a claim to our "knowledge a priori of objects" (1989, 38), and (2) the

⁵⁰ This is part and parcel of the interpretive difficulties that the contemporary reader faces when engaging with Kant's texts. As Houston Smit highlights, Kant's critical philosophy employs many notions including representation [*Vorstellung*], cognition [*Erkenntnis*], and insight [*Einsicht*] that have highly technical, interrelated meanings that were common ground in Kant's intellectual context and that he hence assumed his audience would be familiar with them (ms a).

relevant origin in question is the origin appealed to an origin “of our knowledge a priori of objects” (Ibid., 38). The problem with Henrich’s account is that the origin he proposes is too broad of an origin.⁵¹ For the Schematism and the System of Principles of Pure Understanding are both essentially concerned with our origin of cognition of a priori *Gegenstände*. They both explain, respectively, how *Gegenstände* given in intuition can actually be subsumed under the categories in determining judgments and how the categories can be so employed in judgment according to objective rules so that these determining judgments constitute experience, i.e., empirical cognition (e.g., B147 and B166).⁵² However, Kant does not refer to these arguments as ‘deductions.’ As such, the relevant origin to which we trace our claims in the transcendental and metaphysical deductions must therefore be specified more precisely so that the origin is not at issue in the Transcendental Doctrine of the Power of Judgment. This, in turn, suggests that we need to be more precise than Henrich about (1) the claim(s) at issue in Kant’s philosophical deductions.

For Henrich, (3) the *factum* which the transcendental deduction appeals to is the fact of apperception.⁵³ However, as Ian Proops has rightly pointed out, Henrich does not offer any specific textual evidence for his interpretation (2003, 219f.). Even though Henrich’s conjecture

⁵¹ Moreover, as Smit argues, it is better to think of the transcendental deduction as dealing with synthetic a priori cognition [*Erkenntnis*] of things rather than *knowledge* in Kant’s sense of *Wissen* or our modern sense of justified true belief (+preferred emendations to deal with Gettier-type cases) (ms a).

⁵² I follow Smit in interpreting Kant as having a globalist, holistic conception of experience. According to this conception, any judgment of experience constitutes an instance of experience in virtue of employing the categories to determine an aspect of the single universal human experience. Cf. Kant’s claim in the A-edition transcendental deduction that “there is only one experience [*ist nur eine Erfahrung*] in which all perceptions are represented as in thoroughgoing [*durchgängigen*] and lawlike [*gesetzmäßigen*] connection [*Zusammenhänge*], just as there is only one space and time in which all forms of appearance and all relation of being or non-being takes place [*nur ein Raum und Zeit ist, in welcher alle Formen der Erscheinung und alles Verhältnis des Seins oder Nichtseins stattfinden.*]” (A110).

⁵³ Henrich does not provide an extended discussion of the *facta* to which Kant’s deductions appeal, but he mentions that some of these are “the unity of apperception, the consciousness of space and time as such, and the moral law as fact of reason” (1989, 37).

follows from his general take on *facta* as basic facts (independent of experience) in which claims or rights originate, Proops objects to Henrich's take on the *facta* at issue in Kant's philosophical deductions, arguing that *facta*, being relevant to a legal question, stand in need of proof. Proofs of these *facta* are proofs of the *quid factis*, which Proops argues is a necessary first step in the proof of the *quid juris* (Ibid., 213f & 220). If this is right, then in order for the unity of apperception to play the role of a *factum*, it must be provided with a proof. But it is unclear what proof could be provided on such an interpretation, for it is unclear what antecedent facts the unity of apperception could be proven from (Ibid., 220). It seems unlikely that such a proof can be provided. In any case, in the absence of such a proof, we can look for different candidates for *facta* for the deduction of the categories.⁵⁴

Proops himself builds on Henrich's interpretive hypothesis, suggesting that the *factum* that is relevant for the *quid juris* tackled in the transcendental deduction is the fact of the a priori origin of the categories (Ibid., 219). According to Proops, this proof of the *quid factis* is provided in the metaphysical deduction, which so to speak "provides a 'birth certificate' that establishes the Categories' true ancestry" (Ibid., 223). This serves as a necessary first step in the proof of the *quid juris*. For Proops, this latter question of right is only tackled in sections 15-26 of the transcendental deduction proper, which takes the *quaestio facti* as established and aims to prove the legitimacy of the application of the categories to objects of sensibility (Ibid., 224).

For Proops then the deduction of the categories as a whole comprises two arguments: the metaphysical and the transcendental deduction of the categories. As Proops sees it, this overall

⁵⁴ I agree that *facta* in philosophical deductions require some form of argumentative support, but I disagree with Proops's claims that this argumentative support takes the form of a proof. I think that we ought to construe this support as less ambitious than a proof.

deduction of the categories defends (1) a claim that the categories are capable of having instances within experience (Ibid., 223). It defends this claim by first (a) answering “the threat posed by Hume’s account of the origin of the idea of an objectively necessary connection” (Ibid.) (in the metaphysical deduction). And then (b) by answering the challenge that these genuine *a priori* concepts may be incapable of being applied within space and time. For Proops, both the metaphysical and transcendental deductions of the categories serve to legitimate the same claim: that the categories can be legitimately used in sensibility, but they defend and legitimize this claim in the face of different challenges.

A key aspect of Proops’s interpretation is his bifurcation of the notion of a deduction. According to him, Kant uses ‘deduction’ in two different senses. In the broader sense, it is “a tracing of something from (or, more commonly for Kant to) its origins” (2003, 215). In the narrower sense, a deduction “purports to be a conclusive vindication of the claims with which it deals” (Ibid., 216). On the basis of this bifurcation, he argues that “although Henrich is right to depict Kant as sometimes employing the notion of a ‘deduction’ as a ‘derivation’ or ‘tracing’ of one thing to another, he is wrong, I think, to treat this broader as the most central to Kant’s employment of the legal metaphor in the Deduction of the Categories” (Ibid.). In this way, Proops argues that the “Metaphysical Deduction is a deduction in the broader sense—and in this sense alone” (Ibid.). Thus, for Proops, it is only the transcendental deduction that is a deduction in the technical sense of legitimizing a claim by appeal to an origin. The metaphysical deduction is instead merely a necessary first step in the deduction, not itself a proper deduction in the technical sense. And this step constitutes a proof of the *factum* of the *a priori* origin of the

categories, a *factum* which the transcendental deduction then employs to legitimize the applicability of the categories.

1.4.3 Problems with Proops's Interpretation of Kant's Philosophical Deductions

Though I think Proops's interpretation of the metaphysical deduction is on the right track, rightly criticizing Henrich on several points and giving an attractive alternative view, I am not convinced that it is wholly correct. My main worry with Proops's suggestion is that we cannot interpret the transcendental deduction as being a *conclusive* proof of a claim to a right of the categories to have instances in experience. This is for two different reasons. First, as Henrich points out, Kant's general philosophical methodology, as discussed in the Doctrine of Method, is essentially holistic.⁵⁵ As such, there are no arguments in philosophy that really *demonstrate* their conclusion (as they do in the *a priori* field of mathematics) (1989, 41).⁵⁶ Thus, no philosophical argument in the *Critique* can be said to offer a truly conclusive proof of its conclusion. Rather, all arguments and conclusions have to be considered as defeasible until the whole philosophical system is completed and considered as fitting all together. This includes the transcendental deduction of the categories. Second, given the role it is meant to play in the argumentative economy of the Transcendental Analytic, the transcendental deduction, in particular, cannot prove conclusively that categories can properly have instances in experience in space and time.

⁵⁵ As Kant puts it in the Discipline of Pure Reason, only apodictic proofs in mathematics can truly be called demonstrations, whereas he prefers to call philosophical proofs "acroamatic (discursive) proofs" (734f/B762f). As a consequence of this, reason, in doing philosophy, "cannot look ahead so confidently, as if the path on which it has traveled lead directly to the goal, and it must not count so boldly on the premises that ground it as if it were unnecessary for it frequently to look back and consider whether there might not be errors in the progress of its inferences to be discovered that were overlooked in its *Prinzipien* and that make it necessary either to determine them further or else to alter them entirely" (A735f/B763f).

⁵⁶ Cf. Kant's claims in the Blomberg Logic that rational proofs are either mathematical *demonstrationes* or philosophical and hence "imperfect *probationes*" (BL 24:231).

This is because the Schematism and the System of Principles are also needed to explain the possibility of categories being employed objectively in experience. Given the role it plays in the project of the Transcendental Analytic and the holistic methodology of Kant's philosophy, the sense in which the transcendental deduction is a deduction simply cannot be Proops's narrower sense of a conclusive vindication of a claim.

Instead of bifurcating the notion of a deduction like Proops, I propose that we follow Henrich in interpreting Kant as employing a single, technical notion of a deduction that is essentially connected to the idea of providing legitimation by tracing an origin. This notion can be found in Kant's explicit general characterization of a deduction Kant in section 31 of the third *Critique* (in the critique of the aesthetic power of judgment). Here he writes that a deduction is "the guarantee of the legitimacy of a kind of judgment [*die Gewährleistung der Rechtmäßigkeit einer Art Urteile*]" (KU 5:280), noting that the obligation to provide such a defense of the legitimacy "arises only if the judgment makes a claim to necessity [*tritt nur ein, wenn das Urteil Anspruch auf Notwendigkeit macht*]" (Ibid.).⁵⁷ For our purposes, we can note that the employment of the categories (in judgments of experience) makes a claim to necessity and universal validity, which means that a guarantee of their legitimacy needs to be given.

Once we see that there is no need to bifurcate the notion of a deduction as Proops does, it allows us to understand the metaphysical deduction as itself a deduction in the technical sense consisting of (1) a legitimation of a claim by (2) a tracing to the origin of the claim in (3) a *factum*. As such a deduction, it answers a Humean skeptical challenge by spelling out how we

⁵⁷ In section 30 of the critique of the aesthetic power of judgment, Kant gives a similar, related characterization of a deduction of a kind of judgment as "the legitimation of its presupposition (*Legitimation seiner Anmaßung*)" (KU 5:279).

can form genuine ideas of objectively necessary connections between existents.⁵⁸ As I interpret him, Hume's deepest skeptical challenge is that we may actually have no idea what a genuinely objectively necessary connection is. He argues in section VII of the *Enquiry Concerning Human Understanding*,

“All events seem entirely loose and separate. One event follows another; but we never can observe any tie between them. They seem *conjoined*, but never *connected*. And as we can have no idea of anything which never appeared to outward sense or inward sentiment, the necessary conclusion *seems* to be that we have no idea of connection or power at all, and that these words are absolutely without any meaning, when employed either in philosophical reasonings or common life” (1748, VII.II.1).

Translated into Kant's terms, this challenge is first and foremost a challenge to the intelligibility of concepts of objectively necessary connections, i.e., of grounds, between beings, which we can put to use in thinking and cognition of such grounds.⁵⁹ The claim threatened by Hume's skeptical arguments against the idea of objectively necessary connections between beings is the claim to our having genuine *a priori* concepts of such connections. As I interpret Kant then, he seeks to defend our understanding's claim to possess such concepts in the face of this skeptical challenge in the metaphysical deduction by tracing the origin of our *a priori* concepts of connections between beings, i.e., of the categories, to the logical functions of the understanding. It is precisely because the logical functions of the understanding, as *a priori* basic

⁵⁸ As Eric Watkins notes, “What has received by far the greatest amount of attention regarding Kant's response to Hume on the issue of causality is his Second Analogy of Experience” (2004, 451). Watkins points out that this is understandable since this argument “argues that causality, understood as involving some sort of necessary connection, is a necessary condition for knowledge of objective succession” (Ibid). However, it is important to see that this argument presupposes that we have a genuine concept of necessary connections between beings. We are only in a position to provide a reply to Hume in the Second Analogy if the metaphysical deduction legitimizes our claim to having genuine concepts of such connections.

⁵⁹ Here I follow Smit in interpreting Kant as employing the from-grounds notion of *a priori*, which stems from the Aristotelian metaphysical tradition. According to this interpretation, Kant uses the term “*a priori*” in a way that differs from but implies the contemporary sense of “independent from experience” (Smit, 2009, 189) This term is *a priori* in the from-grounds sense, i.e., cognition of the ontological grounds that make what is known or cognized the case (Ibid., 193). As such, this sense of the *a priori* implies the independence from experience since we do not experience any ontological grounds (as these too are objectively necessary connections between beings).

spontaneous resources of the understanding, ground the categories that they constitute concepts of objectively necessary connections between beings.

I should note that Proops is right to emphasize (in a way that Henrich does not) that the *factum* in which a claim is meant to originate and which is appealed to in a deduction that seeks to vindicate a claim is not best seen as a basic fact, but rather as something that must be somehow argued for (though I do not think this argument is best thought of as a “proof”). However, I think Proops is wrong to hold that only the transcendental deduction has a *factum*: the fact of the *a priori* origin of the categories, proven by the metaphysical deduction. Instead, I think the metaphysical deduction, as a deduction in Kant’s technical sense, also essentially appeals to a *factum* in which the categories originate and which must be argued for: the fact of their originating in exercises of the logical functions of the understanding. I shall argue that this fact is supported by Kant’s argument that these functions are the grounds of the possibility of the logical forms of judgment, which constitute the form of our thinking (which for Kant is representing something to oneself through concepts (cf., *Anth.* 7:196).⁶⁰ Since these logical functions are the *a priori* spontaneous resources of the understanding (which make thought possible), we can legitimize (1) the claim that the categories are genuinely *a priori* concepts that can be legitimately used in thought by (2) tracing their origin to (3) the *factum* of their being applications of the logical functions. The argument for this *factum* begins not in section 10 of the *Analytic*, the metaphysical deduction proper, but rather in the first two sections of the *Leitfaden* chapter: “On the logical use of the understanding” (A67/B92—A69/B94) and section 9 of the *Analytic*, “On the logical functions of judgment in general [*überhaupt*]” (A70/B95—A76/B101).

⁶⁰ “*Verstand, als das Vermögen zu denken (durch Begriffe sich etwas vorzustellen)...*” (*Anth.* 7:196).

These sections present the table of the moments of thinking in general as consisting of both the logical functions of the understanding and the logical forms of judgment. Then in the metaphysical deduction proper, the origin of the categories is traced to their being applications of the logical functions. In this way, the categories' claim to be genuine *a priori* concepts and our claim to use them in thinking of *Gegenstände* are legitimized.

Having outlined my view of how the metaphysical deduction consists of (1) a legitimation of a claim (to legitimately use the categories in thinking) by (2) a tracing to the origin of the claim in (3) a *factum* (the categories' being exercises of the logical functions), I now turn to locate the metaphysical deduction, so interpreted, in relation to the transcendental deduction of the categories.

1.4.4 Relating the Metaphysical and Transcendental Deductions

On my view, the deduction of the categories as a whole (comprising both the metaphysical and transcendental deductions) seeks to vindicate our claim to use the categories in genuine synthetic *a priori* cognition of *Gegenstände*. Like Proops, I think there are two kinds of objections or challenges that are leveled against this claim, which must be answered by different kinds of deductions. The first kind of challenge is that we may not even use these concepts in thinking (and so not in cognition that is partially constituted by thinking) because we do not possess genuine *a priori* concepts by means of which we can think (much less cognize) objectively necessary connections between beings, given Hume's skeptical arguments. The second kind of challenge is that even if we have *a priori* concepts by means of which to think objectively necessary connections of things, we may still not have genuine *a priori* cognition of

Gegenstände because we may not be entitled to employ these concepts to what is given to us in sensibility and so to a manifold of appearances of which we are conscious. On my view, the metaphysical deduction aims to answer the first kind of challenge by tracing the origin of genuine *a priori* concepts of objectively necessary connections between beings. It therefore seeks to vindicate the claim that we possess *a priori* concepts of *Gegenstände* and can make legitimate use of them in thinking. It thereby partially vindicates the claim that we can rightfully employ the categories in synthetic *a priori* cognition of *Gegenstände* (by defending it from this first kind of challenge). It vindicates both of these claims by tracing the origin of the categories to the *factum* of their origin in applications of logical functions of the understanding, i.e., by showing that they originate in exercises of these functions to order manifolds of intuition. The transcendental deduction, in turn, aims to answer the second kind of challenge and to legitimize the claim that these *a priori* concepts are rightfully employable in synthetic *a priori* cognitions of *Gegenstände* that can be given in sensibility in general (established in section 20) and in our own forms of sensibility (space and time) in particular (established in section 26). This latter deduction thereby seeks to vindicate our right to employ the categories in judgments of experience that yields synthetic *a priori* cognition of *Gegenstände*.

Now that I have spelled out my view of what kind of argument the metaphysical deduction is and of how it relates to the transcendental deduction, we can begin to see how my interpretation can meet standards **(1)** and **(3)**. First **(1)**, making sense of the text of the metaphysical deduction proper at A79/B104f. I read Kant's claim that the "same function" gives unity to the pure synthesis of intuitions according to concepts (which the categories represent generally) and to acts of judgment as implying the claim that the categories originate in the logical functions of the

understanding that ground the logical forms of judgment. As such, the argument Kant gives in this passage purports to be a deduction of the categories' claim to have an *a priori* status because they originate in exercises of the basic *a priori* activities of the understanding, i.e., the logical functions (the essential spontaneous resources of the understanding as a capacity to think). The argument then establishes the *a priori* origin of the categories in an exercise of the logical functions of the understanding to order manifolds of intuition in general in order to vindicate the claims that we are in possession of these genuine *a priori* concepts and that we can legitimately use them in thinking. On my view, the metaphysical deduction therefore establishes that if categories (as concepts of objectively necessary connections between beings) are to be possible, then the understanding as a capacity to think must itself, through the exercise of its essential *a priori* activities (the logical functions in general), generate these concepts of objectively necessary connections between beings.⁶¹

Now to **(3)**, giving an appropriate role to the metaphysical deduction within the project of the Transcendental Analytic. Interpreting the metaphysical deduction in the way I suggest allows the argument to be a genuine deduction in the technical sense that is presupposed by the transcendental deduction (itself also a deduction in this sense). First, the metaphysical deduction must vindicate the claim that we can legitimately use pure *a priori* concepts of the understanding or categories in thinking. Only then can we tackle the question of whether these pure concepts of the understanding are applicable in intuition so as to ground the possibility of cognition (and

⁶¹ Here I follow Houston Smit in giving a conditional constitutive reading of Kant's critical project. According to this approach, Kant is not interested in arguing for the actuality or even possibility of genuine experience (and norm-governed thinking). Rather, he is in the business of arguing what things in themselves would have to be like, if experience (and thinking) is to be possible (ms a; ms b, 2-3, ms c, 9).

experience)⁶² of things. More will be said in the final chapter concerning how my interpretation meets the standards set out above. For now, what is important to see is that my general interpretation, based on the development of Henrich's interpretive hypothesis about Kant's notion of a deduction (and the resulting interpretation of the kind of argument the metaphysical deduction is and the place it occupies), seems to meet the standards specified above. With this general interpretation of the metaphysical deduction in hand, I now proceed to spell out what I take to be the general structure of the argument.

1.5 Structure of the *Leitfaden* and the Metaphysical Deduction's Argument

I follow Hoepfner in thinking that we can get much guidance about the structure of the metaphysical deduction by looking at what Kant says about it retrospectively in the second section of the introduction to the Transcendental Dialectic, where he discusses what the project of the Transcendental Analytic accomplishes for the purpose of our concept of the understanding (A298-309/B355-66). Here Kant notes that both the Transcendental Analytic and Dialectic connect three concepts of the relevant intellectual cognitive capacities: (1) a logical concept of the intellectual capacity (a capacity which is purely formal and abstracts from all content), (2) a transcendental concept of the intellectual capacity (a capacity which can generate its own distinct content in the form of concepts and principles), (3) a higher concept of the intellectual capacity (which is broad enough to subsume both the logical and transcendental concept). Hoepfner

⁶² For Kant, experience is empirical cognition (cf. B147, B166, B218). As I interpret Kant's notion of experience is experience of *Gegenstände*. It consists of jointly sensing *Gegenstände* through intuitions and thinking *Gegenstände* through judgments (of experience that employ the categories to determine the intuitions through which we sense *Gegenstände*).

rightly suggests that, by connecting this passage with the argument of the metaphysical deduction, we can illuminate the latter.

1.5.1 Hoepfner's View of the Structure of the Argument

Hoepfner conceives of the argument as proceeding in three steps that correspond to these different concepts (ms a, 2-4). According to him, the first step specifies the logical concept of the understanding by associating it with an account of the logical forms of judgment. The second step specifies the transcendental concept of the understanding by associating it with an account of the conceptual contents of the categories (through a theory of synthesis). The third step specifies the higher concept of the understanding, seeing both the logical and transcendental concepts as species of the same generic kind by establishing the exact correspondence of the categories to the logical functions of thought. For Hoepfner, the first step takes place in the first two sections of the *Leitfaden* chapter, where Kant gives an account of the logical form of judgment in terms of the logical functions of judgment and presents these in a table. The second step takes place in the first part of the third section of the *Leitfaden* chapter, "On the Pure Concepts of the Understanding or Categories" culminating in the claim that "the pure synthesis, generally represented, gives pure concepts of the understanding" (A78/B104).⁶³ Finally, the third step comes at the end of the third section in the metaphysical deduction proper (also called the *Leitfaden* passage), where Kant claims that judgment and intuition rest on "the same function" (A79/B104f.).

⁶³"Die reine Synthesis, allgemein vorgestellt, gibt nun den reinen Verstandesbegriff" (A78/B104)

Hoepfner's account of the threefold structure of the metaphysical deduction and how it relates to the different concepts of the understanding Kant discusses in the second section of the introduction to the Transcendental Dialectic (A298-309/B355-66) seems promising. However, I doubt that he successfully captures the structure of the argument by seeing it as progressing from the presentation of the logical concept to a presentation of the real or transcendental concept, and finally to a presentation of the generic higher concept of which the two are species. Hoepfner takes this passage to be "a retrospective and indirect description" of the metaphysical deduction (ms a, 3). However, it is important to note that Kant in this passage is making the claim that there are three different concepts of our intellectual capacities, not just for the understanding, but also for reason. As such, if this passage's order of presentation of the different concepts is meant to capture the order of the argument according to which the metaphysical deduction takes place, then it seems that this introductory section of the Transcendental Dialectic will also contain an argument that possesses this structure. That is, it will proceed by first presenting the logical concept of reason, then presenting the transcendental concept of reason, and finally inferring to a presentation of the generic higher concept of reason. However, this is not the structure of the argument we find in this section of the Dialectic that relates these three different concepts of reason.

1.5.2 Problems with Hoepfner's View

Kant actually begins this second section of the Dialectic introduction with a subsection titled, "On reason in general [*Von der Vernunft überhaupt*]." It is here that he notes that for both understanding and reason there is a purely formal logical use and a real use that is the origin of

proprietary purely intellectual concepts and grounding propositions. Among other things, the end of this subsection systematically relates reason and the understanding, noting “If the understanding may be a capacity for the unity of appearances by means of rules, then reason is the capacity for the unity of rules of the understanding under *Prinzipien*. *She* [reason] therefore never applies [*geht auf*] directly to experience or to any *Gegenstand* but rather to the understanding, in order to give unity a priori through concepts to the manifold cognitions of the understanding, which is a whole different kind of unity as any which can be achieved by the understanding” (A302/B359).⁶⁴ I will return to this claim that reason applies directly to the understanding in the final chapter when I explain how my interpretation of the functions of the understanding and the metaphysical deduction helps unify our understanding of our whole higher capacity of cognition (which includes reason and the understanding as sub-capacities). But for now, we can note this section’s coming first seems to be an ill fit with Hoepfner’s interpretation. According to Hoepfner, the generic presentation of the concept of the intellectual capacity should come last, following the logical and the real. But here it seems to come first (as we shall see, the next two subsections deal with the logical and the pure real use of the capacity of reason). True, Kant does not use the language of “generic” here. But this subsection’s last paragraph begins by explicitly noting, “that is the universal or general [*allgemeine*] concept of the faculty of reason” (A302/B359) in reference to the above characterization of the understanding as the capacity for the unity of the rules of the understanding under principles. Despite his not using the language of generic, Kant does seem to treat the capacity of reason at a

⁶⁴ “*Der Verstand mag ein Vermögen der Einheit der Erscheinungen vermittelt der Regeln sein, so ist die Vernunft das Vermögen der Einheit der Verstandesregeln unter Prinzipien. Sie geht also niemals zunächst auf Erfahrung, oder auf irgend einen Gegenstand, sondern auf den Verstand, um den mannigfaltigen Erkenntnissen desselben [Verstandes] Einheit a priori durch Begriffe zu geben, welche Vernunftseinheit heißen mag, und von ganz anderer Art ist, als sie von dem Verstande geleistet werden kann*” (A302/B395).

general level to some degree before then turning to flesh out this concept of reason by looking at its logical and then pure real use. The fact that the order in which this section of the Dialectic proceeds is different from the one Hoepfner's interpretation seems like a textual cost of his view.

After the first subsection discusses reason in general, the second subsection of this introductory section to the Dialectic, titled, "On the logical use of the understanding [*Vom logischen Gebrauche der Vernunft*]" proceeds by presenting the logical concept of reason in a subsection called, "On the logical use of reason" (A303/B359). Here Kant explicates the concept of reason as the logicians do, as the capacity to infer mediately [*mittelbar zu schließen*]. Here he notes how our different intellectual sub-capacities are exercised in the different parts of syllogisms or inferences of reason [*Vernunftschluss*] (A304/B360f).⁶⁵ He also adds that there are three different kinds of syllogisms or inferences of reason. These correspond to the different relations that judgments constituting major premises can contain between their constitutive judgments, i.e., to the three relational logical forms: categorical, hypothetical, and disjunctive. However, Kant moves on to the next section called "On the pure use of reason [*Von dem reinen Gebrauche der Vernunft*]"⁶⁶ not to give an account of the transcendental concept of reason by presenting the concepts that reason itself generates (as it would seem Hoepfner's view requires). Instead, he goes on to note that the "formal and logical procedure of reason in inferences of reason [*Vernunftschlüsse*] already provides us [*gibt uns hierüber*] sufficient guidance as to on

⁶⁵ Kant tells us that the judgments that constitute conclusions of syllogisms are strictly speaking judgments made by reason as a sub-capacity of our intellect, in which we determine our cognitions through the predicate of the rule. The judgment that thinks the rule (the major premise) is made by the understanding as a sub-capacity of our intellect, and the subsumption of a cognition under the condition of the rule (the minor premise) is made by the power of judgment (A304/B361).

⁶⁶ Although Kant calls this a "pure" use of reason, his concern with generating concepts and principles by reason implies that this is a pure *real* use of reason to generate these intellectual contents through its pure activity.

what ground its transcendental principle [*Principium*] in synthetic cognition through pure reason will rest” (A306/B363). Kant goes on to claim that this formal and logical procedure leads us to see in particular (1) that reason’s inferences “apply to [*geht auf*] concepts and judgments” (A306/B363) and (2) that in these inferences reason seeks the general condition of its judgments (the conclusions). Kant proceeds to give the “proper foundational proposition [*eigentümliche Grundsatz*] of reason in general (in its logical use): to find the unconditioned for the conditioned cognitions of the understanding” (A307/B364). In other words, Kant moves from the logical concept of reason to the foundational proposition or *Grundsatz* of reason in the part of the Transcendental Dialectic that is parallel to the *Leitfaden* chapter. This *Grundsatz* would seem to be reason’s highest principle, and so it seems to characterize the higher concept of reason.⁶⁷ In interpreting Kant in this way, I suggest that the force of claiming that this is a *Grundsatz* “of the logical use” is that it applies to any use of reason at all, even that which is merely logical, abstracting from all content.

Kant then goes on to argue that this *Grundsatz* becomes “a principle of **pure reason** [*Principium der reinen Vernunft*]” (A307/B364) only if one assumes that when the conditioned is given, then so is the whole series of conditions subordinated one to another. This whole series includes the unconditioned condition of the series as its first member. Thus, by assuming that this whole series (including its unconditioned condition) is given, we turn the logical *Grundsatz*

⁶⁷ As I mentioned above, in the first subsection, “On reason in general,” Kant introduces and discusses the universal concept of reason as a capacity to bring unity to the manifold cognitions and rules of the understanding by bringing them under principles. However, on my view, it is not until we follow Kant in seeing how the proprietary foundational proposition of reason (of seeking the unconditioned for the conditioned cognitions of the understanding) is inherent in the logical procedure of inferences that we actually grasp how reason’s foundational proposition makes possible the logical use (and so how the higher concept of reason encompasses the logical concept). This, in turn, allows us to grasp how this foundational proposition makes possible the real use of reason (and so how the higher concept of reason encompasses the transcendental).

of reason into a *Grundsatz* of pure reason, which is synthetic.⁶⁸ However, as Kant notes, the unconditioned has determinations that the conditioned cognitions of the understanding cannot think: “the unconditioned, if it actually occurs, is particularly to be considered according to all the determinations that distinguish it from everything conditioned” (A308/B365).⁶⁹ The representation by means of which our higher capacity of cognition thinks the unconditioned it necessarily seeks must therefore be generated by the exercise of reason itself, rather than by an exercise of the understanding alone. Reason’s activity generates discursive representations that allow us to unify the cognitions of the understanding in a novel, higher way, a certain unity of which, in Kant’s own words, “the understanding has no concept”⁷⁰ (A326/B383). It is in assuming that the whole series of conditions is given and thus in thinking the unconditioned according to its own demands that reason generates its pure *a priori* concepts, its ideas, which are the concepts through which it thinks the unconditioned conditions of different series of inferences of reason.

For my present purposes, what matters is that the part of the Transcendental Dialectic that Kant claims is parallel to the metaphysical deduction of the Transcendental Analytic proceeds from the logical concept of reason (its form in syllogistic inference) to the higher concept of reason (the *Grundsatz* of seeking the unconditioned), and finally to the real or transcendental concept of reason (which generates the ideas of reason in ordering series of prosyllogisms⁷¹

⁶⁸ The reason why this principle is synthetic is that the conditioned is analytically connected only to some condition or other, but not to an unconditioned condition (A308/B365).

⁶⁹ “*Das Unbedingte...wenn es wirklich Statt hat, kann besonders erwogen werden, nach allen den Bestimmungen, die es von jedem Bedingten unterscheiden*”.

⁷⁰ “*eine gewisse Einheit...von der der Verstand keinen Begriff hat*” (A326/B383).

⁷¹ Kant notes in the second section of the first book of the Transcendental Dialectic that the very same action of reason that leads to thinking a syllogism’s exponent (its first premise) can be continued, leading to prosyllogistic reasoning, “which is a series of inferences that can be continued to an undetermined extent either on the side of

seeking the unconditioned condition of the whole series (A331/B387f)). In the Transcendental Dialectic then, Kant seems to present the logical concept of reason and to use that logical concept of reason as a guide to the higher concept of reason, which in turn guides us to the transcendental concept of reason. This progression from the logical to the higher to the transcendental concept of reason is different from the one Hoepfner proposes for the metaphysical deduction. As we saw above in his view, the progression goes from the logical to the real to the higher concept of the understanding. Here then we see that Hoepfner's interpretation seems to have trouble meeting standard **(2)**, i.e., that of being consistent with other texts that discuss what the metaphysical deduction accomplishes. For despite appearances, we have seen that the Transcendental Dialectic A298-309/B355-66 passage actually suggests that the structure of the metaphysical deduction is different from that which Hoepfner attributes to it. The same can be said for another passage in the Dialectic titled "On the transcendental ideas [*Von der transszendentalen Ideen*]" (A321/B377f). Here Kant notes that in the Transcendental Analytic, the "mere logical form of our cognition can contain the origin of pure concepts a priori" in that "[t]he form of judgments (transformed into a concept of the synthesis of intuitions) brought forth categories [*Die Form der Urtheile (in einen Begriff von der Synthesis der Anschauungen verwandelt) brachte Kategorien hervor*]" (A321/B378). That is, in this text, Kant seems to assert that in the metaphysical deduction, the logical forms (strictly speaking, the functions) of judgment generate the categories by being transformed into certain concepts of the synthesis of intuitions, not just that there is a correspondence between these functions and the

conditions (*per prosyllogismos*) or on the side of the conditioned (*per episyllogismos*)" (A331/B387f). That is, prosyllogisms are series of inferences that seek the unconditioned "on the side grounds, or of the conditions of a given cognition." (A331/B388), i.e., series of inferences going from conditioned to condition to condition seeking ultimately an unconditioned condition or explanation for the whole series of cognitions.

categories, as Hoepfner argues. I will delve into this issue in more detail in chapter five. For now, I turn to my own preferred view of the structure of the argument of the metaphysical deduction.

1.5.3 My View of the Structure of the Argument

Although I agree with Hoepfner that it is fruitful to see the metaphysical deduction as dealing with these three different concepts of the understanding (logical, higher, and real/transcendental), I disagree with him about the structure of the progression across the different concepts of the understanding. In particular, I think that the progression of the metaphysical deduction mirrors that of the second section of the introduction to the *Dialectic* (from logical to higher to transcendental concept). As I see it, the argument progresses by first presenting the logical concept of the understanding (whose essential acts consist of the logical *forms* of judgment). Then it proceeds by reasoning to what makes this concept possible, which leads us to a higher concept (whose essential activities consist of the logical *functions* of the understanding). Finally, it concludes by inferring from the higher to the transcendental concept by seeing it as grounded on the activities of the higher concept, as applied to generate real contents (in the form of the categories or pure concepts of the understanding). Accordingly, on my view, there are three steps in the overall argument of the *Leitfaden*, which culminate in the metaphysical deduction: (1) an identification of the logical concept of the understanding, (2) a progression from the logical to the higher concept, and (3) a progression from the higher concept to the real concept. Step 1 consists in the identification of the logical forms of judgment. Step 2 consists in the abstraction of the logical functions of the understanding as that which grounds the

possibility of the logical forms. These first two steps occur in the first two sections of the *Leitfaden* chapter. Step 3 consists in the tracing of the origin of the categories to these logical functions by realizing they are generated in and through applications of the logical functions of the understanding to order manifolds of intuition. This final step occurs in the third section, 10 of the *Leitfaden* chapter, culminating in the table of categories, which constitute the real contents that are generated by the activities of the pure understanding.

In the following chapters, I spell out the details of my interpretation, articulating the three steps of the argument of the metaphysical deduction as I interpret it. My interpretation of the metaphysical deduction has as its cornerstone a particular interpretation of Kant's concept of function as "the unity of the action, of ordering several representations under communal ones" (A68/B94).⁷² I develop the essentials of my interpretation of Kant's concept of function across the second and third chapters. The second chapter focuses on spelling out the logical concept of the understanding as a capacity to think, which serves as the basis for the next step of the argument. The third chapter deals with the second step of the argument, the progression from the concept of the capacity to think (and thus the logical forms of judgment) to the logical functions of the understanding. It aims to explicate the relation between them and the role they are meant to play separately and jointly in Kant's critical system. These two chapters deal with the logical and higher concepts of the understanding. The second chapter first identifies the logical forms of judgment (that make up the logical concept), and the third chapter identifies what logical functions (that make up the higher concept) make the logical forms possible.

⁷² "die Einheit der Handlung, verschiedener Vorstellungen unter einer gemeinschaftlichen zu ordnen" (A68/B94).

The fourth and fifth chapters deal with the transition from the higher to the real or transcendental concept of the understanding. The fourth chapter focuses on the original acquisition of the categories itself. Here I give my account of the unique acts or “*eigenen Handlungen*” by means of which each of the pure concepts of the understanding is generated. On my view, the categories are essentially generated in exercises of the corresponding logical function to order certain manifolds of intuitions. In the fifth chapter, I spell out my interpretation of the text and argument of the metaphysical deduction proper. In this last chapter, I also argue that my interpretation is preferable to others in the extant literature. This argument is based on comparing different interpretations of the metaphysical deduction with respect to the standards and desiderata set out above. I argue that my interpretation successfully meets all these standards and desiderata (something which, as we shall see, not all other interpretations can accomplish).

CHAPTER 2 – LOGICAL FORMS OF JUDGMENT AND THE LOGICAL CONCEPT OF THE UNDERSTANDING

In this chapter, I undertake preliminary work for my interpretation of the first step of the main argument of the *Leitfaden* chapter. In my interpretation, this first step is the explication of the logical concept or idea⁷³ of the understanding as a capacity to judge. This takes place in the systematically complete presentation of the logical forms of judgment in the table of the moments of thinking in judgment. The explication of this concept or idea of the understanding as a capacity to judge is meant to serve as a guide to the higher concept of the understanding (that contains both the logical and the real use (cf. A298-309/B355-66)), which I shall argue in the next chapter is constituted by the logical functions of the understanding. My focus on this chapter, however, is the explication of the logical concept of the understanding itself as it takes place across the first two sections of the *Leitfaden* chapter. The first section of this chapter, titled, “On the logical use of the understanding in general [*Von dem logischen Verstandesgebrauche überhaupt*]” (A67/B92), introduces the key notions for the first step of the metaphysical deduction (the focus of this chapter and the next two chapters): (a) the understanding as a capacity for cognition through concepts and so a capacity to judge [*Vermögen zu urteilen*], and (b) function as “the unity of the act of ordering several representations under a communal one [*die Einheit der Handlung verschiedene Vorstellungen unter einer gemeinschaftlichen zu ordnen*]” (A68/B93). This first section culminates in the claim that all of the functions of the understanding (on which concepts rest) can be found by completely presenting the functions of unity in judgments [*Die Funktionen des Verstandes können also insgesamt gefunden werden,*

⁷³ Kant uses the term ‘*Begriff*,’ i.e., ‘concept’ for this. But it is a particular species of concept, viz., an idea, for there is no corresponding intuition of the object that can be given to us.

wenn man die Funktionen der Einheit in den Urteilen vollständig darstellen kann]” (A69/B94). I interpret this as Kant’s claiming that the logical forms of judgment (i.e., the logical functions insofar as they are realized “in judgments”) serve as the ground of cognition of the logical functions proper (i.e., the “functions of the understanding”). That is, we come to cognize the latter by means of our cognition of the former.⁷⁴ The second section titled, “On the logical functions of the understanding in judgment [*Von der logischen Funktion des Verstandes in Urteilen*],” proceeds to present the table of the moments of thinking in general (which I interpret as representing the logical functions of the understanding *as realized in* the logical forms of judgment).⁷⁵ This section then elaborates on the contents of this table by giving some “protests [*Verwahrungen*] against worrisome misunderstanding” (A71/B96) concerning the elements in each of the four headings of the table, seeking to explain why it includes the elements that it does under its headings.

In my reading, these first two sections of the *Leitfaden* chapter are ultimately meant to provide an argument for the logical functions by tracing them to the forms of thinking that essentially characterize our higher capacity for cognition as a capacity to judge (according to different logical forms of judgment). We take these fundamental forms of thinking and look at what unifying activities (i.e., what functions) are conditions for the possibility of these logical forms. In this chapter, however, I shall focus on only the first aim of these two sections: the explication of the logical forms of judgment and the corresponding logical concept of the understanding as a capacity to judge. The next chapter then will go on to explain how this logical

⁷⁴ The logical forms thereby serve as the *ratio cognoscendi* of the logical functions, though I shall argue that the logical functions are the *ratio essendi* of the logical forms.

⁷⁵ In this respect, I follow Wolff (1995, 26) and Longuenesse (1998, 72n10) in interpreting the table of the moments of thinking as having two aspects and so being a table both of functions and of forms.

concept of the understanding leads to the higher one and so how the logical functions of the understanding and forms of judgment relate.

With this larger goal in mind, I continue the present chapter by first spelling out the background to these sections, consisting of the introductory material to the Analytic of Concepts. With this context spelled out, I then turn to discuss Kant's concept of the discursive understanding as treated in the first two sections of the Analytic of Concepts. This crucially includes the claim that the understanding is a capacity to judge, and that it is as such a capacity that it is the guiding principle for the complete and systematic presentation of the elementary forms of judgment (as represented in the table of the moments of thinking in judgment). I then critically evaluate Kant's claim that the table of judgments completely and systematically presents the elementary logical forms of judgment by deriving them from a communal principle, viz., the idea of the understanding capacity to judge. In doing so, I discuss other interpreters' takes on the completeness of the table of judgments and give my own interpretation of the kind of argumentative support Kant means for this claim to have.

2.1 Context to the *Leitfaden*: Introductory Material to the Analytic of Concepts

To get a better sense of how this first part of the *Leitfaden* project is meant to work, it is worth stepping back and locating the *Leitfaden* chapter within the whole of the Transcendental Logic. The Transcendental Logic is a counterpart of the Transcendental Aesthetic. The Transcendental Aesthetic is an aesthetic in Kant's technical sense, i.e., a science of the rules of sensibility in general, "*Wissenschaft der Regeln der Sinnlichkeit überhaupt*" (A52/B76). It analyzes our passive sensibility as a capacity for representation through intuitions and determines

its contributions to explaining the possibility of synthetic a priori cognition. It purports to determine that time and space serve as the conditions for the possibility of things' being given to us in inner and outer sense. The Transcendental Logic, in turn, is a logic in Kant's technical sense, i.e., a science of the rules of the understanding in general, "*Wissenschaft der Verstandestregeln überhaupt*" (A52/B76). It analyzes our spontaneous understanding itself as a capacity for representation through concepts in order to determine its contributions to explaining the possibility of synthetic a priori cognition. This is a logic that, if achieved, "would contain [*enthielte*] the rules of the pure thinking of a *Gegenstand*" (A55/B80), unlike a pure general logic, which "abstracts from all content of cognition, that is, from all *Beziehung* to the object, considering only the logical form in *Verhältnisse* of cognitions to one another, that is, the form of thinking in general" (A55/B79).

This Transcendental Logic, like other logics in Kant's time, consists of (1) a positive part (an analytic), which analyzes our understanding and spells out principles for its correct use, and (2) a negative part (a dialectic), which spells out principles for the correct use of reason. Crucially, this dialectic includes a critique of the dialectical illusion we fall into when we misuse the principles spelled out in the analytic by seeking to apply them beyond the domain where they have legitimate application. The Transcendental Logic's Analytic presents "the elements of the pure cognition of the understanding [*Verstandeserkenntnis*]" and the "*Principien*" without which "no *Gegenstand* can be thought at all [*überall keinen Gegenstand gedacht werden kann*]" (A62/B87). The transcendental logic's dialectic then gives a critique of the dialectical illusion we fall into when we mistakenly take these formal principles of pure thinking of *Gegenstände* (which are legitimately applied to matter given by sensibility) to constitute an organon of a universal and

unlimited use of the understanding and thereby seek to apply them to *Gegenstände* that are not given to us in sensibility (cf. A63/B88).

My focus throughout is on the Transcendental Analytic, which comprises two parts: the (Transcendental) Analytic of Concepts and the (Transcendental) Analytic of Principles. The Transcendental Analytic as a whole, Kant tells us “is the analysis [*Zergliederung*] of our whole cognition a priori into the elements “of the pure cognition of the understanding [*der reinen Verstandeserkenntnis*]” (A64/B89). Both of these Analytics then analyze the understanding as a capacity for cognition and how it grounds the possibility of synthetic *a priori* cognition of *Gegenstände* of experience. The Analytic of Concepts investigates (a) how the understanding constitutes a source of concepts by means of which we can think at all *Gegenstände* a priori (i.e., a source of the categories) and (b) how we can legitimately employ the categories to cognize *Gegenstände* given in our spatiotemporal sensibility. The Analytic of Principles, in turn, investigates how the understanding constitutes a source of principles by means of which we can put these categories to objective use by applying them to what is given to us in sensibility so as to ground the possibility of experience.

My focus throughout in this work is the Analytic of Concepts. It is divided into two main chapters. The *Leitfaden* chapter (whose full title is “On the Guiding Thread to the Discovery of all Concepts of the Understanding [*Von dem Leitfaden der Entdeckung aller Verstandesbegriffe*]”) focuses on what Kant calls the “Clue” or “Guiding Thread” to the discovery of all pure concepts of the understanding. The Deduction chapter (whose full title is “On the Deduction of the Pure Concepts of the Understanding [*Von der Deduktion der reinen Verstandesbegriffe*]”) focuses on the *transcendental* deduction of the categories. In my reading,

this involves legitimizing the claim that the categories can be put to use in synthetic cognition of *Gegenstände* given to us in sensibility in general and in our own spatiotemporal sensibility in particular.

The focus of this entire dissertation is the *Leitfaden* chapter of the Analytic of Concepts. This chapter seeks to deliver the pure *a priori* concepts of the understanding not empirically or by induction, but rather systematically, by following a *Leitfaden*, a clue or guiding thread. This guiding thread, as we shall see, is the idea of the understanding as a capacity to judge.⁷⁶ As such an idea, the understanding provides the communal principle according to which we are to seek the pure concepts of the understanding and determine the place of each and their joint completeness (cf. A67/B92). The understanding as a capacity to judge thereby also serves as the idea of a whole of the cognition of the understanding *a priori* by means of which a system of such concepts is possible (A65/B90). Accordingly, the Analytic of Concepts is not an analysis of concepts, but rather an “analysis of the capacity of the understanding itself [*Zergliederung des Verstandes selbst*]” (A66/B90), one undertaken in order to investigate the possibility of objectively valid *a priori* concepts of beings [*um die Möglichkeit der Begriffe a priori dadurch zu erforschen*]” (Ibid.) that can be employed to cognize things given in sensibility.

⁷⁶ Béatrice Longuenesse centrally emphasizes the importance of Kant’s use of capacities in *Kant and the Capacity to Judge* (1995, esp. 7-8). I follow her in emphasizing how important this notion is for understanding the role the understanding and sensibility play as the two stems of cognition in Kant’s transcendental philosophy. She points out that Kant takes this talk of capacity seriously, as evidenced by his distinction in his *Lectures on Metaphysics* between *Kraft* and *Vermögen*. I also follow Smit in noting that, Kant uses ‘spontaneity’ “in a technical Leibnizian sense that needs to be understood in the context of certain Aristotelian conceptions of activity, capacity, and power” (2009, 240). As Smit notes, A *Kraft* or power is that in virtue of which something acts, i.e., constitutes a sufficient real ground. Corresponding to every power is a *Vermögen* or capacity, i.e., an active potency in virtue of which a subject, in exercising a power, is active. Activity or *Tätigkeit* is the inner action of a capacity, a striving (*conatus* or *Bestebug*), i.e., an inner tendency or effort through which that capacity actuates itself as a power (Cf. *MV*. 28: 434, *Refl.* 3582 (17: 72), *Refl.* 3583 (17:72) and *Refl.* 3585 17:73). This *conatus* is translated into action (and thus actuated as a power) given external conditions. I follow Longuenesse in taking the focus of the Analytic to be the *Vermögen zu Urteilen* (rather than the *Urteilkraft* or power of judgment). This capacity is “the capacity for discursive thought, the specific forms of which are delineated by Kant in his table of the logical functions of judgment” (1995, 8).

This analysis of our higher capacity of cognition searches for these concepts “in the understanding alone, as their birthplace [*im Verstande allein als ihrem Geburtsorte*]” and analyzes the pure use of the understanding “*dessen reinen Gebrauch überhaupt analysieren*” (A66/B91). This is central to transcendental philosophy, and indeed, in Kant’s own words, this analysis of our capacity of understanding and of how it serves as the origin of pure concepts a priori in its pure use is “the proper business [*eigentliche Geschäfte*] of a transcendental philosophy” (A66/B90). Kant thus summarizes the project of the Analytic of Concepts as one in which we “pursue [*verfolgen*] the pure [i.e., *a priori*] concepts into their first seeds [*Keimen*] and predispositions [*Anlagen*] in the human understanding, in which they lie ready until finally with the opportunity of experience, they are developed and through the very same understanding exhibited in their clarity, freed from the empirical conditions attaching to them” (A66/B91).⁷⁷ As I see it, this exhibition [*Darstellung*] of the pure a priori concepts in their clarity (freed from their empirical conditions attaching to them) takes place at the end of the argument of the metaphysical deduction in the exhibition of the table of categories. It is conducted by the transcendental philosopher’s use of their reason and common understanding we all share, and it is this common understanding which first generates these concepts when it receives impressions from sensibility.

With this context for the *Leitfaden* chapter spelled out, I turn now to discuss the beginning of this chapter.

⁷⁷ “Wir werden also die reinen Begriffe bis zu ihren ersten Keimen und Anlagen im menschlichen Verstande verfolgen, in denen sie vorbereitet liegen, bis sie endlich bei Gelegenheit der Erfahrung entwickelt und durch eben denselben Verstand, von den ihnen anhängenden empirischen Bedingungen befreiet, in ihrer Lauterkeit dargestellt werden ” (A66/B91).

2.1.1 Beginning of the *Leitfaden* Chapter

The fact that Kant titles this chapter, “On the Clue/Guiding Thread to the **Discovery** of the Pure Concepts of the Understanding” (A66/B91, my emphasis) suggests that this chapter is meant to provide not just some form of justification of the pure concepts of the understanding (as I suggest, a legitimation or vindication of them in the face of a Humean skeptical challenge). Kant also intends this chapter to provide some guidance as to the "Discovery" of these pure concepts, i.e., guidance as to how we come to have and employ these concepts.⁷⁸ The discovery of these concepts, Kant tells us, cannot take place by a mechanical procedure of investigation. In this procedure, we discover concepts “merely as the opportunity arises [*nur so bei Gelegenheit*]” (A67/B91) and can only pair these concepts according to their similarities and place them in different series according to the magnitude of their content from the simple to the composite. This procedure may be in a way methodical, but it fails to be truly systematic and fails to give a true order and systematic unity to the discovered concepts (A66f/B91f).

Instead, the discovery of the pure concepts of the understanding is an exercise in transcendental philosophy. This, Kant tells us, is a philosophy that “has the advantage but also the obligation [*Verbindlichkeit*] to seek its concepts according to a principle, because they arise out of the understanding as absolute unity, pure and unmixed and must therefore hang together

⁷⁸ Proops makes this very point in noting that to emphasize the justificatory role of the Metaphysical Deduction “is not to deny that establishing the a priority of the Categories is not the only task Kant assigns to the Metaphysical Deduction” (2003, 223n39). For the table of judgments, as the “clue to the *discovery* of the Pure Concepts of this Understanding, is supposed to facilitate the principled *identification* of these concepts” (Ibid). Proops argues that Kant cannot appeal to an isomorphism between the table of categories and the table of judgments as evidence for his view that what it is to be a category is just to be a function of judgment in its application to a manifold of sensibility. Proops notes that “such an argument would be possible only if Kant had a means of identifying the Categories independently of the Metaphysical Deduction” (Ibid). He ends the footnote by noting that “how the Metaphysical Deduction can hope to combine the goal of identifying the categories with that of establishing their origins as a priori is therefore a vexed question...that lies beyond the scope of this paper” (Ibid.). I will tackle this vexed question directly in the next chapter.

among themselves [*unter sich zusammenhängen müssen*] according to [*nach*] a concept or idea” (A67/B92).⁷⁹ The great advantage Kant claims for his transcendental-philosophical way of seeking the pure concepts of the understanding is that such a “hanging together [*Zusammenhang*] provides a rule by means of which the place of each pure concept of the understanding and the completeness of all of them can be determined *a priori*, which would otherwise depend upon whim or chance” (Ibid.). In other words, the procedure of transcendental philosophy is systematically unified precisely in proceeding according to a concept or idea of the understanding. This idea serves to give unity to the investigation and discovery of the sought-after pure concepts and allows the transcendental philosopher to grasp these concepts as systematically hanging together “because they arise from, i.e., are grounded in, the understanding itself as a pure and unmixed [*unvermischt*] unity [*weil sie aus dem Verstande, als absoluter Einheit, rein und unvermischt entspringen*]” (A67/B92). In other words, the fact that these concepts arise from the understanding as a pure and unmixed unity ensures that these concepts hang together among each other according to precisely the concept or idea of the understanding.

Already at the beginning of this first chapter then Kant is putting forth the idea that transcendental philosophy will discover the sought pure concepts of the understanding, the categories, in its analysis of the faculty of the understanding by following a *Leitfaden*, a guiding thread or a clue. This clue, Kant suggests, is provided by a concept that serves to give unity to the project of discovering the pure concepts of the understanding in the nature of the

⁷⁹ “Die Transzendentalphilosophie hat den Vorteil, aber auch die Verbindlichkeit, ihre Begriffe nach einem Prinzip aufzusuchen, weil sie aus dem Verstande als absoluter Einheit, rein und unvermischt entspringen, und daher selbst nach einem Begriffe, oder Idee, unter sich zusammenhängen müssen” (A67/B92).

understanding itself as an absolute unity. I turn now to this concept, that of the understanding as a capacity to judge, as spelled out in the first two sections of the *Leitfaden* chapter.

2.2 The (Logical) Concept of the Understanding as a Capacity to Judge

Kant begins the first main section of the *Leitfaden* chapter by claiming that, up until this point in the *Critique*, the understanding has been explained merely negatively as a non-sensible capacity for cognition and so as a capacity for cognition that partakes of no intuition (A67f/B92f). He reasons that, since besides cognition through intuitions, there is no other kind of cognition except that through concepts, the understanding must be a capacity for cognition through concepts. That is, the human understanding must be a discursive, “not intuitive,” capacity for cognition (A68/B93). Kant then fills out this contrast between sensibility and understanding and their proprietary representations, telling us that all intuitions, “as sensible [*sinnlich*],” rest on affections [*beruhen auf Affektionen*]” (A68/B93) of our sensibility. By contrast, concepts rest “on functions [*auf Funktionen*]” (Ibid.). Parallel claims are made here by Kant concerning what grounds these two kinds of representations: (a) intuitions, as sensible, are grounded on affections, and (b) concepts are grounded on functions. By (a), Kant seems to mean that our sensibility, as a passive or receptive capacity for representation and cognition, generates intuitions (the representations by means of which it immediately relates to *Gegenstände*) by being affected by something independent of us.⁸⁰ By (b), Kant seems to mean that our understanding, as an active or spontaneous capacity for representation and cognition, generates

⁸⁰ I follow Smit in rejecting a minimal reading of the immediacy of intuition (2000). According to this mistaken reading, the immediacy of intuition consists in its not relating to its *Gegenstand* through marks. Instead, I follow Smit in holding that the immediacy of intuition consists in relating to its *Gegenstand* through intuitive marks, i.e., through singular instances of properties of that *Gegenstand*, as they are represented in (so make up the contents of) our intuitions (2000, esp. 260-66).

concepts not by being affected by something else, but rather by actively exercising its own functions. This general idea seems confirmed by Kant's words in the following sentence, which seemingly glosses the dependence of concepts and intuitions on functions and affections: "Concepts ground themselves therefore on the spontaneity of thinking, as sensible intuitions on the receptivity of impressions [*Begriffe gründen sich also auf der Spontaneität des Denkens, wie sinnliche Anschauungen auf der Rezeptivität der Eindrücke*]" (A68/B93).⁸¹ Upon introducing the notion of function as that on which concepts rest, Kant immediately characterizes functions as follows: "*Ich verstehe aber unter Funktion die Einheit der Handlung, verschiedene Vorstellungen unter einer gemeinschaftlichen zu ordnen*" (A68/B93). This characterization, which is key to the *Leitfaden* chapter, is "the unity of the action of ordering several representations under a communal⁸² one." Much may be said about Kant's rich notion of function. However, what is central to my current purposes is that, whatever else a function may be, a function *per se* is not itself a representation-ordering act, but rather the *unity* of such a representation-ordering act. Emphasizing that functions are first and foremost *unities* of representation-ordering acts (rather than representation-ordering acts themselves) helps us see that the same function can be used to order different representation-ordering acts, i.e., acts that order different kinds of representations under communal ones. I will have much more to say

⁸¹ What exactly (b) comes down to, i.e., how the spontaneity of thinking is involved in functions' grounding the possibility of concepts, depends crucially on how one interprets Kant's notion of function, a task I leave for the next chapter.

⁸² A case can be made that at least sometimes Kant uses 'allgemein' and 'gemeinschaftlich' interchangeably. In particular, in section 10 of the Transcendental Analytic, Kant claims that counting is "*eine Synthesis nach Begriffen, weil sie nach einem gemeinschaftlichem Grunde der Einheit geschieht*" (A79/B105). Here Kant infers that something is a synthesis according to concepts because it takes place according to a "*gemeinschaftlichem*" i.e., "communal" ground. That is, Kant infers that something is according to a concept, an *allgemeine* representation because it is according to a common ground. However, this is compatible with "*gemeinschaftlich*" being a more general term, such that being an "*allgemein*" representation is only one way of being a "*gemeinschaftlich*" or "communal" representation.

about logical functions and the way in which they involve the spontaneity of the understanding in the next chapter. However, since my focus on this chapter is on the logical forms of judgment, this basic understanding of Kant's notion of function will suffice to see how Kant relates it to judgments by means of which we use concepts (that rest on functions).

2.2.1 Discursive Understanding and Its Intrinsic Link to Sensibility

After giving his characterization of function and noting that concepts (insofar as they are grounded on functions) are grounded on the spontaneity of thinking, Kant claims next that “Of these concepts, the understanding can make no other use than that of judging through them [*Von diesen Begriffen kann nun der Verstand keinen andern Gebrauch machen, als daß er dadurch urteilt*]” (A68/B93). That is, Kant explicitly claims that the understanding can make use of its concepts only in judgments. He explains this is because “no representation applies immediately to the *Gegenstand* [*unmittelbar auf den Gegenstand geht*]” besides intuition so that “a concept is never related [*bezogen*] immediately to a *Gegenstand* but rather to some or another representation of the *Gegenstand* (be it an intuition or itself or itself already a concept)” (Ibid.).⁸³ Here we see Kant claiming that a discursive understanding essentially requires for cognition some form of sensibility through which we can acquire (sensible) intuitions by *Gegenstände*'s affecting our sensibility.⁸⁴ In our case, a discursive understanding is paired with a spatiotemporal sensibility, but it is possible for the same understanding to be paired with a non-spatiotemporal

⁸³ “*Da keine Vorstellung unmittelbar auf den Gegenstand geht, also bloß die Anschauung, so wird ein Begriff niemals auf einen Gegenstand unmittelbar, sondern auf irgend eine andre Vorstellung von demselben [Gegenstand] (sie sei Anschauung oder selbst schon Begriff) bezogen*” (A68/B93).

⁸⁴ Kant characterizes sensibility as “the ability [*Fähigkeit*] (receptivity) to acquire representations through the way in which we are affected by [*Gegenstände*]” (A19/B33). I follow Smit in holding that for Kant, a *Vermögen* is an active capacity, whereas a mere *Fähigkeit*, is a passive ability, an ability to be affected.

sensibility through which it acquires some non-spatiotemporal sensible intuitions. This dependence of concepts on intuitions (and therefore of understanding on sensibility) in order to relate to *Gegenstände* seems to be essential to Kant's conception of a discursive understanding.⁸⁵

This essential dependence of a discursive understanding on some sensible intuitions is something that we need to square with Kant's claims that (1) in transcendental logic (and especially the Transcendental Analytic of Concepts), "we isolate the understanding...and lift up the part of our thought that has its origin solely in the understanding [*In einer transzendentalen Logik isolieren wir den Verstand...und heben bloß den Teil des Denkens aus unserm Erkenntnisse heraus, der lediglich seinen Ursprung in dem Verstande hat*]" (A62/B87), that (2) "the pure understanding completely withdraws itself not only from everything that is empirical but also even from all sensibility [*Der reine Verstand sondert sich nicht allein von allem Empirischen, sondern so gar von aller Sinnlichkeit völlig aus*]" and that (3) the pure understanding, as treated in the Analytic of Concepts, is therefore "a for-itself-subsisting, in-itself-enough unity that can through no external additional supplements be increased [*eine für sich selbst beständige, sich selbst genügsame und, durch keine äußerlich hinzukommenden Zusätze zu vermehrende Einheit*]" (A65/B89f). That is, we need to understand how it is that the Analytic of Concepts considers the (discursive) understanding by itself, wholly separately from all sensibility and yet as also essentially dependent on some form of sensible intuition for its relation to *Gegenstände*.

My suggestion is that we interpret Kant in the Analytic of Concepts as working with the concept of a discursive understanding as paired with *some form of sensibility that delivers*

⁸⁵ Of course, as Kant notes, the same is not the case for a divine or intuitive understanding "through whose self-consciousness the manifold of intuitions would at the same time be given" (B139).

(*sensible*) intuitions or other but considered as prescinding from any particular form our sensibility may take, *including our own particular spatiotemporal form* (as it is treated in the Transcendental Aesthetic). That is, the understanding considered in the Analytic of Concepts is a discursive understanding, which requires (*sensible*) intuitions in order to relate to *Gegenstände*. Therefore, this understanding requires some form of sensibility or other. Our understanding is therefore taken as operating on manifolds of (*sensible*) intuition in general (as opposed to empirical manifolds of intuition or even a pure but already spatiotemporal manifold of intuition). If we interpret Kant as working with this view of our discursive understanding as using essentially general representations that relate to *Gegenstände* mediately and so as requiring some form of sensibility that works with intuitions (as essentially singular representations that relate to things immediately),⁸⁶ then it makes sense that Kant concludes that “judgment is the mediate cognition of a *Gegenstand* [*Das Urteil ist also die mittelbare Erkenntnis eines Gegenstandes*]” (A68/B93). Kant elaborates on the nature of this mediate cognition of a *Gegenstand*, noting how in every judgment, we predicate a concept of several representations. These representations include some intuition that relates to *Gegenstände* immediately. He gives the example of the judgment, “**All bodies are divisible**” as one in which the concept of <divisibility> is related to the concept of <body>, which is itself related to appearances, i.e., undetermined *Gegenstände* of an empirical intuition (A20/B34).⁸⁷ On the basis of this understanding of the structure of

⁸⁶ This is, as noted above, following Smit’s view on the immediacy of intuition (2000, 260-266). On this view, the immediacy of intuition consists in its relating to its *Gegenstand* through intuitive marks, i.e., through singular instances of properties of that *Gegenstand*, as they are represented in (and so make up the contents of) our intuitions. Concepts are then essentially mediate representations because they relate to *Gegenstände* through discursive marks, i.e., through general properties of *Gegenstände* as they are represented in (and so make up the contents of) our concepts.

⁸⁷ Kant claims in the First Section of Transcendental Aesthetic that “the undetermined *Gegenstand* of an empirical intuition is called [*heißt*] appearance [*Erscheinung*]” where ‘empirical intuition’ is what we call “an intuition that

judgments, Kant then concludes “*Alle Urteile sind demnach Funktionen der Einheit unter unsern Vorstellungen*” (A69/B94), i.e., “all judgments are functions of unity among our representations.” I interpret this claim as claiming that insofar as (a) all judgments order several representations under a concept, a common and/or communal or “*gemeinschaftlich*” representation, and (b) functions are unities of acts that order several representations under a concept, judgments can all be seen as instances of exercises of functions in this technical sense. That is, I propose we read the claim that all judgments are functions of unity as a claim that all judgments *realize* or *constitute* unities rather than as a strict identity claim between functions and judgments.⁸⁸

With this general interpretation of the way in which the understanding’s functions (that ground concepts) and its judgments (by means of which the understanding uses concepts) relate, I now turn to Kant’s next main claim, viz., that the understanding in general can be represented as a capacity to judge.

relates to the *Gegenstand* through sensation [*Empfindung*]” and ‘sensation is “the effect of a *Gegenstand* on the ability to represent, insofar as we are affected by it [*Die Wirkung eines Gegenstandes auf die Vorstellungsfähigkeit, so fern wir von demselben affiziert werden*]” (A19f/B34).

⁸⁸ This reading permits us to hold that there are functions of the understanding that are not judgments, even though all judgments are functions, which leaves room for us to understand the structure of functions apart from that of judgments. This distinction will be important for my interpretation of the relation between logical functions and their realization in judgments as logical forms. The approach I take contrasts with that of interpreters such as Peter Schultess (1981), Reinhardt Brandt (1995), and Bernhardt Thöle (2001, 485-6), who take the functions at issue in the first section of the *Leitfaden* to be the predicative use of concepts in judgment. I discuss this issue in detail in the next chapter.

2.2.2 The Communal Principle or Idea of a Whole: The Logical Concept of The Understanding as a Capacity to Judge

After arguing that judgments realize functions as unities of representation-ordering acts, Kant asserts that “we can, however, trace back all actions of the understanding back to judgments, so that the understanding in general can be represented as a capacity to judge [*Wir können aber alle Handlung des Verstandes auf Urteile zurückführen, so daß der Verstand überhaupt als ein Vermögen zu urteilen vorgestellt werden kann*]” (A69/B94). It is here then that Kant finally presents to us the concept or idea that serves as the guiding principle according to which we can systematically search for the pure concepts of the understanding which “arise from the understanding as absolute unity, pure and unmixed” (A67/B92): the concept or idea of understanding as a capacity to judge. I propose, following Hoepfner, that we understand this concept as the “logical concept” of the understanding.⁸⁹ For, this concept, as spelled out in the table of logical forms of judgment concerns “the logical use of the understanding” and “abstracts from all content” (A68/B92 & A299/B355). The pure concepts of the understanding then must hang together among themselves according to this guiding idea or concept in such a way that their connection provides a rule “according to which [*nach welcher*] the place of each pure concepts of the understanding and their joint completeness of all can be determined a priori” (Ibid.).⁹⁰ This idea or concept of the understanding as a capacity to judge also seems to be the “**idea of a whole** of the *Verstandeserkenntnis a priori*” that makes possible the completeness of

⁸⁹ I should point out that Kant himself does not use this label in the *Leitfaden* chapter itself. However, he does use this label to characterize the argument retrospectively in the second section of the introduction to the Transcendental Dialectic.

⁹⁰ Kant confirms this after presenting the table of categories, noting that the division of this table is systematic and generated from a communal principle: “*Die Einteilung ist systematisch aus einem gemeinschaftlichen Prinzip, nämlich dem Vermögen zu urteilen, (welches eben so viel ist, als das Vermögen zu denken,) erzeugt*” (A80f/B106).

the science that is the Transcendental Analytic by determining a division of concepts that connects them in a system (A64/B89). The logical concept of the understanding as a capacity to judge is thereby also the idea under which we can grasp and determine the *Inbegriff* of all the cognitions of the understanding (treated in the Transcendental Analytic as a whole) so as to have them constitute a system (A65/B90).⁹¹ This idea therefore seems to serve as the cornerstone of Kant's architectonic system, determining the systematic connections of the different architectonic aspects of Kant's philosophical system. That is, the idea of the understanding as a capacity to judge is that which explains not just why it is that we have the pure concepts of the understanding that we do (as Kant highlights after presenting the table of the categories), but also (together with our spatiotemporal sensibility) why it is that we have the principles of pure understanding and logical forms and functions of judgment that we do. It therefore seems that it is the logical concept of the understanding as a capacity to judge that plays the role of the *Leitfaden*, the guiding thread proper, throughout Kant's transcendental philosophy. It is this logical concept of the understanding then that fundamentally explains why Kant's critical philosophy has the systematic, architectonic form that it has.

If the concept of the capacity to judge explains the systematic form of Kant's philosophy, then the structure and content of the table of the logical form of judgments, which articulates this concept, should ground the systematicity of Kant's positive critical philosophy. Kant explicitly confirms this in the *Prolegomena* when he claims in section 23 after presenting the tables of the moments of thinking, the categories, and the principles of pure understanding, that "the

⁹¹ Kant's term '*Inbegriff*' is often translated as 'sum total.' But I follow Smit in interpreting Kant's *Inbegriff* as an essentially conceptual species of totality that can only be thought by a certain use of our intellectual capacities (ms). According to this view, there is a single *Inbegriff* of universal human experience (comprising all possible experiences of *Gegenstände* for humans) that can be thought that itself is not a possible experience.

systematization that is required for the form of a science is here found to perfection [*das Systematische, was Zur Form einer Wissenschaft erfordert wird, ist hier vollkommen anzutreffen*]” (Prol. 4:306). He explains that this is because no other formal conditions of rules are possible besides “the formal conditions of all judgment in general (and hence of all rules in general) furnished by logic, and these formal conditions of all make up a logical system” (Prol. 4:306).⁹² These formal conditions seem to be the logical forms of judgment as they come together in a table. This is confirmed by Kant inferring that “the [pure] concepts [of the understanding] based thereon [on the logical forms of judgment] however, [*die darauf gegründeten Begriffe aber*], which contain the *a priori* conditions for all synthetic and necessary judgments, for that very reason, make up a transcendental system [*welche die Bedingungen a priori zu allen synthetischen und nothwendigen Urtheilen enthalten, eben darum ein transsendentales...ausmachen*]” and that “finally, the *Grundsätze* by means of which all appearances are subsumed under these concepts and make up a physiological system, i.e., a system of nature, which precedes all empirical cognition of nature and first makes it possible, and can therefore be called the actual universal and pure natural science” (Prol. 4:306).⁹³ In short, Kant explicitly claims in the *Prolegomena* that the systematicity of the transcendental table of categories and the physiological table of *Grundsätze* of pure understanding is grounded in that of the logical table of the moments of thinking in judgment. It is thus the logical concept of the

⁹² “weil über die genannte formale Bedingungen aller Urtheile überhaupt, mithin aller Regeln überhaupt, die die Logik darbietet, keine mehr möglich sind, und diese ein logisches System...ausmachen” (Prol. 4:306)

⁹³ “endlich die Grundsätze, vermittelst deren alle Erscheinungen unter diese Begriffe subsumiert werden, ein physiologisches, d.i., ein Natursystem ausmachen, welches vor aller empirischen Naturerkenntniß vorhergeht, diese zuerst möglich macht und daher die eigentliche allgemeine und reine Naturwissenschaft genannt werden kann“ (Prol. 4:306).

understanding as a capacity to judge that grounds systematicity of Kant's critical philosophy in general.

With the centrality of the logical concept of the understanding as a capacity to judge for Kant's philosophy in view, I now turn to the issue of how Kant thinks this idea serves as a guiding principle that is meant to secure the systematic completeness of the table of the moments of thinking in judgment.

2.3 The Guiding Principle and The Completeness of The Table of the Moments of Thinking in Judgment

Kant notes at the end of the first section of the *Leitfaden* that the task that the second section tackles (with its presentation of the table of the moments of thinking) is that of presenting the "functions of unity in judgment" completely so as to find the "functions of the understanding" (A69/B94). I interpret (a) the "functions of unity in judgment" as the logical functions *realized as* logical forms in judgments that order discursive representations and (b) the "functions of the understanding" as the logical functions as such, considered in abstraction from their realization in acts of judgments.⁹⁴ Thus, in my interpretation, this table is a table of both logical forms and functions.⁹⁵ My focus in this chapter is how this table, *qua* table of logical forms, is meant to explicate the logical concept of the understanding as a capacity to judge. That is, here I focus on

⁹⁴ An alternative interpretation of the "functions of the understanding" is as the categories, which might be suggested by the fact that the chapter as a whole concerns the discovery of these categories. However, we need not read this text as narrowly referring to the categories. For as the next sentence points out, he speaks of finding these functions in "the following section," which is titled "On the logical function of the understanding in judgments" (A70/B95), and it is only the subsequent section that is titled "On the pure concepts of the understanding or categories" (A78/B102).

⁹⁵ My interpretation shares this aspect with that of Wolff (1995, 26) and Longuenesse (1998, 72n10)

how these different headings and moments of the table are meant to constitute a complete and systematic presentation of the resources of the logical use of the understanding.

This second section of the *Leitfaden* chapter, titled “On the logical functions of the understanding in judgments [*Von der logischen Funktion des Verstandes in Urteilen*],” begins by noting that “if we abstract from all content in a judgment in general and attend only to the mere form of the understanding in a judgment in general, we find that the function of unity in a judgment in general can be brought under four titles, each of which contains three moments under itself⁹⁶ (A70/B95).⁹⁷ I suggest that we understand this as a claim that the table of the moments of thinking exhibits the logical functions *as they are employed to unify judgments* (acts which order discursive representations under communal ones). Because of this, the elements of the table of the moments of thinking in general [*Tafel der Moment des Denkens überhaupt*]” (A71/B96) are the logical functions *as realized in* logical forms.

Even though for the purposes of transcendental philosophy, it is essential that this table of the moments of thinking be, in part, a table of logical functions (that which grounds concepts), it is *qua* table of logical *forms* that Kant seems to primarily claim it is systematically complete. For the completeness Kant claims for the table of the moments of thinking is one owed to its being

⁹⁶ “*Wenn wir von allem Inhalte eines Urteils überhaupt abstrahieren, und nur auf die bloße Verstandesform darin achtgeben, so finden wir, daß die Funktion des Denkens im demselben unter vier Titel gebracht werden könne, deren jeder drei Moment unter sich enthält*” (A70/B95).

⁹⁷ It is worth noting that moments are more than kinds, for they seem to indicate a progression. The key term ‘moment’ that Kant employs to describe the headings (and elements) of the table is used by Kant in his natural philosophy and other parts of his critical philosophy, speaking e.g., of “the moment of gravity” (4:551), “the moment of acceleration” (4:551) and “the moment of resistance to other moved matters” (A173/B215). In particular, in the second Analogy of experience, he notes that “All alteration is...only possible through a continuous action [*kontinuierliche Handlung*] of causality, which, insofar as it is uniform, is called a moment” (A209/B254), adding “The alteration does not consist of these moments, but is generated from them as their effect [*Wirkung*]” (Ibid.). Kant thus speaks of moments of physical and thinking causality, as uniform constituents of the activity of material and thinking substances. In both cases, moments are constituents of continuous unified activities of substances that do not themselves consist of alteration, but which generate alteration as their effect through the continuous activity they jointly constitute.

based on the idea of the capacity to judge (cf. Kant's claim that the division in the table of categories similarly "is systematically generated [*systematisch erzeugt*] from a communal principle, namely the faculty to judge [*Vermögen zu urteilen*], which is the same as the capacity to think [*Vermögen zu denken*] (A80f/B106)). It is thus as an explication of the resources of the capacity to judge (to order discursive representations according to the logical forms of judgment) that this table is first and foremost systematically complete. Kant is unequivocally committed to the claim that this table of logical forms is systematically complete because it is based on a single principle [*Princip*]: the idea of the understanding as a capacity to judge. However, there is no widespread agreement on what kind of argumentative support Kant wishes to give for his claim that this first table is complete. I therefore now turn to the issue of different interpretations of this argumentative support. I will note in what ways I agree and disagree with interpreters in order to inform and offer my own interpretation of the argumentative support Kant intends for the completeness of this table to have.

2.3.1 Interpretations of the Completeness Argument for the Table in the Literature

In the literature, there are different views of what kind of argumentative support Kant means to provide for the claim that the table of the logical forms of judgment is complete. Some views, like Klaus Reich's,⁹⁸ hold that Kant meant for there to be a systematic argument for the completeness of the table that is not included in the *Critique* and is to stem from a complete transcendental philosophy (that is posterior to the *Critique*) (1992). A different kind of view

⁹⁸ Other interpretations that attempt to deliver systematic rather than text-based arguments for the completeness of the table of judgments include Walter Bröcker's in his *Kant über Metaphysik und Erfahrung*, which bases the argument on his own account of judgment rather than transcendental apperception (1970, Ch. 7, esp. 42-f).

holds that Kant means to provide argumentative support for the completeness claim within the *Critique*. Among these, some (such as that of Lorenz Krüger) hold that the kind of argumentative support Kant means to provide within the *Critique* is relatively weak, certainly weaker than that of a deductive or syllogistic stepwise proof or deductive argument from an axiom (1968, 342). In Krüger's view, the argument for the completeness of the table relies on transcendental notions that are only introduced in the transcendental deduction of the categories (in particular the objective synthetic unity of apperception as the "highest point").

Other views are more ambitious in the kind of argumentative support they interpret Kant as providing for the claim that the table of the logical forms of judgment is complete. For example, Reinhardt Brandt argues that Kant means for the argument to occur in the immediate context of the table in (A67-76/B92-101). Michael Wolff follows Brandt in basing his reconstruction of the argument for the completeness of the table in the immediate context of the table. However, he more ambitiously argues (1) that the first section of the *Leitfaden* chapter contains a rigorous (stepwise syllogistic or in the contemporary sense, deductive) argument for the completeness of the four basic functions, i.e., of the heading of the tables, and (2) that the first two sections contain a (deductive) argument for the completeness of the three elementary functions under each basic function (1995, 8, 92-3, 110). In what follows, I will briefly evaluate these different views, noting what I find problematic and attractive about them. I will then offer my own view of the kind of argument Kant means to provide for the completeness of the table of the logical forms of judgment, one that is informed by these views.

As we have seen, Kant emphasizes that the idea of the capacity to judge as an idea of a whole of cognition is meant to give a systematic form to the cognitions of the Transcendental Analytic,

a form that assures that they are systematic and complete. This is meant to apply especially to the tables of logical forms/functions, to that of the pure concepts of the understanding, and to that of the principles of pure understanding. However, as commentators have worried, it is not clear that Kant actually does provide an argument for the claim that the first table (on which the others rest) is complete. At the very least, no explicit, extended argument for the completeness of this first table seems to occur at any point in the first two sections of the *Analytic of Concepts*. This has led some commentators, notably Klaus Reich and others⁹⁹ to argue that Kant does not argue for the completeness of the table in the *Critique* but that the broader system of transcendental philosophy can deliver such an argument (*Ibid.*, esp. Ch. 5-7). Reich undertakes to reconstruct his own proof of the completeness of the table of the logical forms of judgment based on other systematic resources of Kant's transcendental philosophy. In doing so, Reich focuses in particular on the principle of the objective unity of apperception and contends that this proof should take place in the order opposite to Kant's presentation of the titles in the *Critique* (i.e., from modality to quantity rather than the other way around).

Reich's approach is natural in thinking that systematic considerations ground an argument for the completeness of the table of logical forms and is suggested by Kant's remarks that the critique of pure reason is not yet the complete system of transcendental philosophy (A13/B27). However, Reich's approach is not without its problems. As Lorenz Krüger has criticized, it is not clear that in the passages Reich relies on for his interpretation Kant actually claims that the issue of the completeness of the table of moments of thinking or categories is not to be treated in the *Critique* (1968, 335). True, Kant claims in the introduction to the *Critique* that a complete

⁹⁹ This includes Walter Bröcker (1970) and Peter Schulthess (1981).

system of transcendental philosophy (which he admits does go beyond the *Critique*) would require an exhaustive analysis of the a priori concepts of the understanding as well as a complete review of all concepts that can be derived from them (A13/B27). However, Kant notes that this analysis, which goes beyond the *Critique*, will be “easy to complete as long as they are present as exhaustive principles [*ausführliche Prinzipien*] of synthesis, from which “nothing is lacking in regard to this essential aim [*in Ansehung dieser wesentlichen Absicht nichts ermangelt*]” (Ibid.). Thus, there seems to be little textual evidence that Kant postpones (as Reich contends) the elaboration and argument of the table of the moments of thinking until we acquire the additional components of transcendental philosophy that are posterior to the *Critique*. Instead, as Krüger notes, it would seem that these posterior aspects, being concerned with the analysis of the categories and their predicables, would not discuss such foundational presuppositions as the table of the logical forms of judgments (1968, 336). Brandt also criticizes Reich’s approach on several grounds, including that it presupposes that Kant in no way argues for the completeness when he presents the table himself and that it relies on Kant’s private notes from 1770 to 1800 to fill the argumentative gaps (1995, 39). *Pace* Reich then, there are both textual and philosophical reasons to think that if Kant intended for there to be an argument for the completeness of this table, it should be treated at least to a significant extent within the first *Critique*.

At this point, it is worth highlighting that the issue of what kind of argumentative support there is for the completeness of the table of logical forms is even thornier than one might initially expect. For as Krüger has pointed out, it is not just that Kant does not seem to provide a clear proof of the completeness of this table in the *Critique*. More deeply worrisome is the fact that Kant seems to claim in several passages that such a proof is impossible. An example of this is the

end of section 21 of the B deduction: “For the peculiarity of our understanding, however, that it is able to bring about the unity of apperception a priori only by means of the categories and only through exactly this kind and number of them, there is as little further ground that can be offered as to why we have exactly these and no other functions to judge, or why space and time are the only forms of our possible intuition” (B145-6).¹⁰⁰ As Krüger interprets this quote, Kant seems to explicitly claim that we cannot offer any ground for (and so cannot explain) why we have the functions and forms of judgment that we do (1968, 337). Krüger takes this to amount to the claim that it is impossible to give an argument for the completeness of the table of the logical forms of judgment. Kant makes similar claims in passages such as section 36 of the

Prolegomena:

“How this peculiar property of our sensibility itself or that of our understanding and of the necessary apperception underlying it [the understanding] and all thoughts is possible, cannot be further solved and answered, since we always have need of them [understanding and sensibility] for all answering and for all thinking of Gegenstände”¹⁰¹ (*Prolog.* S36 4:318).

Here Kant explicitly claims that we cannot answer the question of how this particular understanding or sensibility is possible, i.e., we cannot explain the possibility of our spatiotemporal sensibility or of our thinking is grounded in apperception. The reason Kant gives seems to be that in order to answer any question or to think of things at all, we must make use of

¹⁰⁰ “Von der Eigentümlichkeit unseres Verstandes aber, nur mittelst der Kategorien und nur gerade durch diese Art und Zahl derselben Einheit der Apperzeption a priori zustande zu bringen, läßt sich ebensowenig ferner ein Grund angeben, als warum wir gerade diese und keine anderen Funktionen zu urteilen haben, oder warum Raum und Zeit die einzigen Formen unserer möglichen Anschauung sind” (B145-6).

¹⁰¹ “Wie aber diese eigentümliche Eigenschaft unserer Sinnlichkeit selbst, oder die unseres Verstandes und der ihm und allem Denken zum Grunde liegenden notwendigen Apperzeption, möglich sei, läßt sich nicht weiter auflösen und beantworten, weil wir ihrer zu aller Beantwortung und zu allem Denken der Gegenstände immer wieder nötig haben“ (*Prolog* §36 4:318).

these capacities for cognition. Thus, we cannot, so to speak, step outside of them in order to explain what grounds their possibility. A parallel passage to this is from a letter to Herz dated May 26th, 1789:

How such a sensible intuition (as space and time) the form of our sensibility or [how] such functions of the understanding as those which logic develops out of it [the understanding] is even possible, or how it happens that one form harmonizes with the other into a possible cognition, that is absolutely impossible to explain further, since we would have to have yet another kind of intuition as ours and another understanding with which we can compare our understanding and each of which determinately presents to itself the thing [*und deren jeder die Dinge an selbst bestimmt darstellte, haben mußte*]: we can however only assess everything through our own understanding and so too can only assess all intuition through the one belonging to us (*Br.* 11:51).¹⁰²

Once again, Kant here seems to claim explicitly that we cannot explain the possibility of our forms of intuition or of our functions of the understanding or how the form of our thinking and of our sensibility agree into a possible cognition. The reason Kant gives for this is similar to the one above. For he claims that in order to explain such a possibility, we would have to somehow be able to compare our understanding and sensibility to ones that are not our own. However, we can only evaluate all understanding and all intuition through our own understanding and sensibility, so we do not have the resources to tackle this question.

Krüger then interprets these passages¹⁰³ as suggesting that Kant holds that a critical undertaking of an argument for the completeness of the table of the moments of thinking is both indispensable and yet impossible (1968, 336f). It seems indispensable because otherwise there is no guarantee that we have improved upon Aristotle's list of the categories. It seems impossible

¹⁰² *Wie aber eine solche sinnliche Anschauung (als Raum und Zeit) Form unserer Sinnlichkeit oder solche Functionen des Verstandes, als deren die Logik aus ihm entwickelt, selbst möglich sey, wie es zugehe, daß eine Form mit der Andern zu einem möglichen Erkenntnis zusammenstimme, das ist uns schlechterdings unmöglich weiter zu erklären, weil wir sonst noch eine andere Anschauungsart, als die uns eigen ist und einen andern Verstand, mit dem wir Verstand vergleichen können und deren jeder die Dinge an selbst bestimmt darstellte, haben müßten: wir können aber allen nur durch unseren Verstand und so auch alle Anschauung nur durch die unsrige beurteilen" (Br. 11:51).*

¹⁰³ Another parallel passage can be found in the second *Critique*: "Nun ist aber alle menschliche Einsicht zu Ende, so bald wir zu Grundkräften oder Grundvermögen gelangt sind; denn deren Möglichkeit kann durch nichts begriffen, darf aber auch eben so wenig beliebig erdichtet und angenommen werden" (*KpV* 5:46f).

because such a proof would seem to outstrip the resources that are available within Kant's critical system.

Krüger wishes to provide a solution to this seemingly paradoxical situation by arguing that Kant holds (1) that a stepwise progressive proof from a single principle (of the kind Reich, Bröcker, and Wolff [as we shall see] interpret Kant as having) is impossible, and (2) that a "proof" in another, more humble sense is both possible as well as supplied in the *Critique* (1968, 337). In doing this, Krüger studies Kant's own formulation of the task of arguing for or ensuring the completeness of the table of the logical forms of judgment. He cites several passages in which Kant discusses the notion of a *system* and how it relates to the idea of a whole of cognition and the end [*Zweck*] of this whole. As part of this, Krüger discusses Kant's characterization of the notion of system in the Architectonic of Pure Reason in the Transcendental Doctrine of Method: "I understand however by a system the unity of the manifold cognitions under an idea. This is the concept of reason of the form of a whole insofar as the scope of the manifold as well as the position of the parts among one another are determined through it a priori" (A832/B860).¹⁰⁴ (A832/B860). That is, a system is the unity of the manifold of cognition under an idea. This idea is a concept of reason [*Vernunftbegriff*] of the form of a whole. Such a concept allows us to determine a priori the position of the parts of the manifold as well as the scope of the manifold (which Krüger notes would seem to include its completeness). Krüger notes, as we did above, that in the introduction to the Transcendental Analytic Kant claims that the categories must hang together [*zusammenhängen*] among one another according

¹⁰⁴ „Ich verstehe aber unter einem Systeme die Einheit der mannigfaltigen Erkenntnisse unter einer Idee. Diese ist der Vernunftbegriff von der Form eines Ganzen, sofern durch denselben der Umfang des Mannigfaltigen sowohl, als die Stelle der Teile untereinander, a priori bestimmt wird“ (A832/B860).

to an idea (A67/B92) and that the possibility of the Transcendental Analytic as a science can only be achieved through “an idea of a whole of cognition a priori [*nur vermittelt einer Idee des Ganzen der Verstandeserkenntnis a priori*]” (A64-5/B89). Though these passages do not themselves signal that the idea of a whole serves as a highest axiom for what we would now call a deductive system, Krüger notes that in other formulations Kant suggests this (Ibid., 338). For example, when he notes that “the systematic in cognition [*das Systematische der Erkenntnis*]” is “the hanging together of the same [cognition] out of one principle [*der Zusammenhang derselben aus einem Prinzip*]” (A645/B673) and when he claims, after giving the above characterization of the notion of system in the Architectonic, that the *Vernunftidee* of a whole contains the “end and form of the whole [*Zweck und die Form des Ganzen*]” (A832/B860). Kant then proceeds to associate this systematicity related to the whole with an end by claiming that “that which we call science [*dasjenige was wir Wissenschaft nennen*] can only arise architectonically for the sake of its affinity and of the derivation from a single highest and inner end, which first makes the whole possible”¹⁰⁵ (A833/B861). A parallel passage in the *Prolegomena* similarly claims that a philosopher only has a system of cognitions when he derives a priori from one principle [*aus einem Prinzip ableiten*] a multiplicity of concepts or *Grundsätze* in such a way as to be able to unite them all in one cognition such that he knows why exactly so many, not more or fewer kinds of cognition, can be made and has insight into the necessity of their division which is a grasping [*Begreifen*] (*Prol.* §39, 4:322).¹⁰⁶ A final *Reflexion* on logic also expresses the same idea: “A

¹⁰⁵ “...architektonisch, um der Verwandtschaft willen und der Ableitung von einem einigen obersten und inneren Zwecke, der das Ganze allererst möglich macht, kann dasjenige entspringen, was wir Wissenschaft nennen” (A833/B861).

¹⁰⁶ *Es kann einem Philosophen nichts erwünschter sein, al wenn er das Mannigfaltige der Begriffe oder Grundsätze, die sich ihm vorher durch den Gebrauch, den er von ihnen in concreto gemacht hatte, zerstreut dargestellt hatten, aus einem Princip a priori ableiten und auf solche Weise in eine Erkenntniß vereinigen kann...jetzt weiß er, daß*

system cannot be made through putting together but rather only through derivation [*System kann nicht durch Zusammenstellung, sondern nur durch ableitung gemacht werden*] (Refl. 2233, 16:279).

All these passages might suggest that the argument for the completeness of the table from the idea of a whole is meant to take the form of deducing the elements of this table by using the principle as an axiom. However, Krüger argues that we need not understand Kant's use of the term '*Ableitung*' in his discussion of systematicity as suggesting a deductive argument. According to Krüger, the idea of a whole is meant to ground a system not as an axiom or principle from which a stepwise syllogistic proof can be carried out, but rather as an "*Entscheidungskriterium*," a criterion for deciding which forms of thinking are irreducible and characteristic of thinking as such (1968, 342). This is a criterion for deciding which forms of thinking are to be included in the table of the moments of thinking in general. Krüger takes this "idea of a whole" to be the "highest point to which also all of logic is to be affixed" (1968, 342), i.e., the synthetic unity of apperception as Kant discusses it in a footnote in section 16 of the transcendental deduction (B134n). According to Krüger, many forms of thinking (the logical forms) are given to us *a priori* as subjects of cognition, like the forms of receptivity, and *qua* given, is something that can only be named and not inferred (1968, 341).

Krüger's idea seems to be that as thinking subjects, we find ourselves inevitably thinking according to many logical forms, so we need a criterion to decide which logical forms are forms that aid [*verhelfen*] the understanding in its end of producing unity among our representations, i.e., to decide which these forms are genuine "functions." As an advantage for his interpretation

gerade so viel, nicht mehr, nicht weniger die Erkenntnißart ausmachen könne, und sah die Nothwendigkeit seiner Eintheilung ein, welches ein Begreifen ist, und nun hat er allererst ein System" (Prol. §39, 4:322)

of the idea of a whole as a criterion, Krüger notes that it rules out the logical form of a copulative judgment as a function (Ibid.). The elements of the table of the moments of thinking then are to be the simple and irreducible forms of judgment that constitute the simple and irreducible functions out of whose iterations other complex logical functions can be formed (Ibid.). For Krüger then, “the highest point” or the “highest principle of all use of the understanding “determines the whole inner structure of the capacity for cognition [*den ganzen inneren Gliederbau des Erkenntnisvermögens*] without being made into a major premise for deductions” (in the contemporary sense)” (1968, 342-3).¹⁰⁷

I think Krüger is right to argue for his theses (1) and (2). That is, I agree with him that Kant thought that a stepwise syllogistic proof from a single principle (used as an axiom or major premise) that allows us to explain *a priori* the possibility of the logical functions and forms of judgment is impossible *and* that Kant took himself to give a different kind of argument for the completeness of the table of the logical forms of judgment. I thereby think Krüger is right to criticize Reich’s reconstruction of a completeness proof for the table as to be provided outside of the *Critique*. Moreover, I find the general approach Krüger takes compelling. It strikes me as correct that the idea of a whole that serves as a communal principle for the table of the logical forms of judgment in general plays this role not as an axiom or major premise in a syllogistic stepwise proof, but in a weaker way. On this kind of approach, the guiding principle provides a weaker kind of argumentative support from the completeness claim than that provided by an

¹⁰⁷ Though I discuss this in more detail in chapter five, Krüger gives an account of the metaphysical deduction as having two steps: one leading to the table of judgments, and one that, as it were, repeats this same table in a new light. In this way, “the same function of the understanding” (A79/B104f) is shown under a new aspect, with regard to a different givenness, that of the manifold of intuition (1968, 340). According to Krüger, the first step aims to show that all activity of the understanding consists in judgments, the second that all actions of the understanding in judgments must be the same as that in the synthesis of an intuitive manifold (Ibid.).

axiom from which all elementary forms of judgment can be logically deduced (in a contemporary sense of deduction). However, I am not convinced that (a) Krüger correctly identifies the relevant criterion or idea of a whole that serves as a communal principle for the table or that (b) the role the communal principle plays in explaining the elements and structure of the table of the logical forms of judgment is exhausted by its serving as a decision criterion in the way Krüger suggests.

Regarding (a), Krüger claims that the principle that explains the completeness of the table is “*der höchste Punkt an den auch die ganze Logik zu heften ist*” (B134n). “The highest point” he refers to is the synthetic unity of apperception. However, this interpretation is textually problematic insofar as the idea that Kant explicitly claims as a principle for his tables (both of the moment of thinking and of the categories) is not the idea of the synthetic unity of apperception. It is rather, as we have seen, the idea of the capacity to judge. True, Kant seems to think there is a deep connection between the synthetic unity of apperception and the understanding, as he discusses in the transcendental deduction, and so presumably to the understanding as a capacity to judge. However, Krüger does not spell out this connection in detail in giving his interpretation. Moreover, as Brandt rightly points out, it is not clear that Kant intends for the argument of the metaphysical deduction to rely on transcendental notions developed in the transcendental deduction like the objective synthetic unity of apperception or the “I think,” as these do not occur in the discussion that accompanies the table of the logical forms of judgment (1995, 13). It is thereby also not clear that Kant intends for the argument for the completeness of the table of this table to rely on such transcendental notions. Additionally, Krüger’s interpretation of the end of the “idea of a whole” of the understanding is to produce

unity among our representations “*Einheit unter unseren Vorstellungen herzustellen*” (1968, 342). For my present purposes, I need not delve into the issue of what the end of the understanding as a capacity to judge is. However, it is worth noting that it is unclear that thinking of the end of the understanding as producing unity among our representations is rich enough to capture the characteristic end of the understanding as a capacity to judge (as opposed to reason, who also aims at producing unity in our representations but of a kind not accessible to the understanding (Cf. A302/B359, A326/B383)).

As for (b), the claim that the idea of a whole or communal principle of the table plays this role by being a decision criterion, this would seem to reduce the role this principle serves into that of a test by means of which we can rule in or rule out particular logical forms as fundamental. This fits nicely with Krüger’s take on our simply being given *a priori* all kinds of logical forms. However, this proposal faces problems. First, as Brandt criticizes, Krüger does not show us which logical forms are given a priori or how Kant draws his complete table of judgments from them in a convincing manner. (1995, 12-13). In other words, Krüger gives no sufficient explanation of how to apply the decision criterion so as to obtain the elements of the table of functions from the set of a priori given logical forms. Furthermore, it is not clear that Kant intends the guiding principle to serve as a mere criterion of decision. For such a criterion does not seem to be able to systematically and completely generate the elements of the table and thereby guide us positively in the task of discovering the fundamental logical forms. Without this positive guidance, however, it would seem that we are perhaps still engaging in too mechanical a procedure, one in which we cannot determine a priori that our table is complete.

More troubling for Krüger's interpretation is the worry that if this principle is a mere criterion of decision, then it cannot explain why the table has the systematic structure that it does. The closest Krüger comes to giving such an explanation is when he claims, "The table itself must teach us about its completeness, and she can do this in the sense that we consider it under the idea of the unity of the understanding as a demarcation criterion [*Die Tafel selbst muß uns also über ihre Vollständigkeit belehren; und sie kann es in dem Sinne, daß wir sie unter der Idee der Verstandeseinheit als eines Abgrenzungskriterium betrachten*]" (1968, 343). However, as Wolff points out, Krüger does not tell us how we are to perform this consideration of the unity of the understanding as a criterion such that we can systematically demarcate all the logical forms, showing that the table is complete (1995, 119-20n141). Therefore, it does not seem that Krüger's is an adequate interpretation of how the communal principle of the table allows us to present the table of the logical forms of judgment completely and systematically.

I take there to be a further issue with Krüger's take on how the criterion of decision is meant to work (one that allows one to decide which logical forms are actually fundamental). As evidenced by his approach, he notes that it can explain why copulative judgments are not included in the table. To be sure, he is right that the reason for this is that the form of such judgments is not irreducible (1968, 342). He is also right to highlight that the completeness of the table of logical forms concerns the completeness of the non-derivative forms (allowing for there to be derivative ones not included in it, so long as they are grounded on the non-derivative ones). However, the reason Krüger gives for this irreducibility cannot be right. It may well be that judgments according to these logical forms are reducible, but it is not clear that they fail to constitute functions of unity among representations. For Kant explicitly claims in the first section

of the *Leitfaden* chapter, “**All** judgments...are functions of unity among our representations” (A69/B94, my emphasis). Given the seemingly unrestricted scope of Kant’s claim here, it would seem that, *pace* Krüger, copulative judgments, as judgments, are also functions of unity. Moreover, copulative judgments seem to meet Kant’s characterization of function as the unity of the act of ordering several representations under a communal one (A68/B93). In a copulative judgment, either two (or more) subjects are affirmed (or denied) of a single subject, or a single predicate is affirmed of two (or more) subjects (*Refl.* 3088-9 16:652 (cited in Allison 2004, 142)). In both of these judgments, however, several representations are ordered under a communal one (whether this latter be a predicate-concept or a subject-concept). Thus, it seems that *pace* Krüger copulative judgments can be seen as instances of functions of unity among our representations.

Generally, I think Krüger is on the right track with his interpretive approach of construing the argument from a communal principle to the completeness of the table of the logical forms of judgment as weaker than a stepwise syllogistic proof. However, I do not agree with Krüger’s own positive account of the weaker argument Kant gives. If my worries for Krüger’s accounts are legitimate, then it remains to articulate how the logical concept of the understanding as a capacity to judge can serve as a principle from which we can argue to the completeness of the table of the logical forms of judgment by systematically generating these logical forms. Before I do so, however, I will critically discuss other interpretations of how Kant argues for the completeness of this table.

In contrast to Krüger and Reich, Brandt (1995, 4) and Wolff (1995, 8) argue that Kant provides a detailed argument for the completeness of the table within the immediate context of

the table of the moments of thinking (A67-76/B92-91). Wolff is perhaps most ambitious, for he argues that the first section of the *Leitfaden* chapter, “On the logical use of the understanding” argues that each of the first three logical functions is associated with one of the sub-capacities of the intellect: quantity with the understanding in the narrow sense as the capacity to grasp concepts (1995, 92-3), quality with the power of judgment as the capacity to subsume under a rule (Ibid.), and relation with reason as the capacity for mediate inference (Ibid, 110). Wolff and Brandt bring together this association between headings and intellectual capacities together with Kant’s discussion of the heading of modality in the explanatory passage in which he associates these three sub-capacities with the three different moments of modality (A75n/B100n) to make some insightful remarks about the structure of the table, which are of much heuristic value.

Wolff claims that the table is arranged such that the first three headings form a triangle and so are visually grouped together, and that the fourth heading is connected to the first three in equilibrium, expressing a balance between all four titles that is appropriately expressed by the regularity of the square they comprise (1995, 142). Brandt similarly notes that the first three tables form a self-contained and complete geometrical figure, a triangle. The fourth heading then expands the figure into a square, adding something qualitatively new yet in such a way that the fourth element only needs to be a reflection or mirroring of the three antecedent ones (1991, 60).

Impressive though Wolff’s approach and efforts in implementing it may be, there is a general worry with Wolff’s trying to read a systematic argument for the completeness of the four basic functions of the understanding [*Grundfunktionen*] into the first section of the *Leitfaden* chapter, which Bernhardt Thöle has raised. Thöle rightfully notes that in the text there is at no point talk of four *Grundfunktionen* and that none of these functions is explicitly named by Kant

(2001, 484). If Kant's intention in this passage is to give an argument for such basic functions in this first section, he would seem to be at pains to conceal it (Ibid.). Furthermore, as Thöle notes, if Wolff were right in this approach, we should expect Kant's claim in the second section of the *Leitfaden* something along the lines of, "in the previous section, we *found* four basic functions [*Im vorigen Abschnitt fanden wir vier Grundfunktionen*]" (Ibid.). Instead, we find that this section claims that if we abstract away from all content in a judgment in general, "then we *find* [i.e., *not found*] that the function of thinking [in a judgment in general] can be brought under four titles" (A70/95, my emphasis). That is, the fourfold division of functions seems first to take place in the second section, with the presentation of the table, not before. The worry stands then that impressive though Wolff's efforts to coax each of the four basic functions out of the first section of the *Leitfaden* may be, these distinctions seem to be read into rather than read out of the text (cf. Thöle 2001, 484-5).

One further substantive way in which Wolff's interpretation is problematic is in his claiming that the qualitative logical functions constitute a use of concepts that is non-predicative and in which the subject-concept is immediate related to *Gegenstände* as part of his interpretation of the second heading of quality (1995, 80f, 144-5, 171). I take this to be problematic because Kant explicitly claims in the first section of the *Leitfaden* both (a) that concepts essentially relate to *Gegenstände* mediately as predicates of possible judgments and (b) that "a concept is never related immediately to a *Gegenstand*" (A68/B93). In other words, Kant seems to explicitly rule out in this passage key aspects of Wolff's interpretation of the qualitative use of judgments.¹⁰⁸

¹⁰⁸ Thöle (2001, 486f) and Hoepfner (ms a, 20) give a similar criticism of Wolff's account.

Brandt takes a somewhat less ambitious take on the argument for the completeness of the table of the logical forms of judgment, but he too wishes to glean argumentative support for the completeness of the table from the immediate context of the table. He rightly notes that it cannot be disputed that in the passages surrounding the table of judgments (A67-76), Kant explicitly mentions the completeness of the moments of the table (1995, 4). According to Brandt, any interpretation of the table and its completeness that purports to refer to the *Critique* and its claims to systematicity must begin with these passages. These passages do not mention the “I think,” consciousness, or the unity of apperception but rather focus on the capacity of the understanding, its acts, and their functions. Brandt argues that we should interpret Kant to be referring to traditional logics (such as the *Port Royal Logic* of 1662 and Christian Wolff’s *Logic* to which Kant refers in his lectures) when he uses the phrase “acts of the understanding” in claiming that “all acts of the understanding can be traced back to judgments” (A69/B94) (1995, 54-55). In other words, Brandt argues that the term ‘acts of the understanding’ is a technical term from these logics. These acts are meant to include four essentially different kinds of intellectual acts: conception, judgment, inference, and method(ization), which can be seen in such logic textbooks. As Brandt notes, “the concept of an act of the understanding is pervasive in these logics...belong to the standard vocabulary of logicians and epistemologists. The concept refers to the three- or four-part ‘organon,’ offering of itself a guarantee of the complete enumeration of all logical acts of the understanding” (1995, 55). Brandt’s strategy is to use this interpretive point (among others) to reconstruct “[T]hose interpretive achievements that Kant could reasonably expect from the scholars for whom he wrote” (1995, 46). In doing so, Brandt lowers the bar for the kind of argumentative support from the completeness of the table. However, he sets for this

task a certain methodological maxim, seeking to rely solely on the introduction, presentation, and explanation of the table itself (A67ff/B92ff) (1995).

In pursuing his interpretation, Brandt rightly points out that a key clue as to how the idea of the understanding is meant to explain the completeness of the table of the logical forms of judgment lies in a comment concerning the content of a judgment that Kant makes after presenting this table. He notes, “besides quantity, quality, and relation there is nothing more that makes up the content of a judgment [*außer Größe, Qualität, und Verhältnis ist nichts mehr, was den Inhalt eines Urteils ausmache*]” (A74/B100). Brandt takes this comment to be to essential Kant’s view of the completeness of the table of the logical forms of judgment, writing, “Anyone who fails to show how quantity, quality, and relation constitute the content of a judgment, to which, for certain reasons, modality is then added has also failed to identify the central thought” (1995, 5). As Brandt sees it, this comment suggests that the first three headings of the table of the logical forms of judgment are what they are because constitute the form of the content of a judgment in general. In other words, according to Brandt the content of a judgment in general consists of a quantity, a quality, and a relation of representations. Modality, in turn, concerns the way this content is related to the understanding as a capacity to judge in general (A74/B100). In other words, Kant seems to claim that the form of a judgment can be determined along four basic dimensions, three of which constitute the content of the judgment, and the fourth which constitutes the way the content is taken up by the understanding in general. This idea is confirmed by a passage in the *Jäsche Logic*, where Kant claims, “the distinction among judgments in respect of their form may be traced back to the four principal moments of *quantity, quality, relation, and modality*, in regard to which just as many different kinds of judgments are

determined [*in Rücksicht auf ihre Form lassen sich auf die vier Hauptmomente der Quantität, Qualität, Relation und Modalität zurückführen, in Ansehung deren eben so viele verschiedene Arten von Urtheilen bestimmt sind*]” (JL 9:102). Thus, Kant’s conception of the act of judgment holds that it essentially has this fourfold form.

Building on the idea of this essentially fourfold structure to judgments, Brandt interprets the first section of the *Leitfaden* chapter as arguing for the completeness of the four headings, albeit less explicitly and ambitiously than Wolff. Brandt interprets Kant’s claim that judgments are “functions of unity among our representations” (A69/B94), as the claim that “epistemic” judgment is an articulated unity with three different dimensions (1991, 85).¹⁰⁹ Concepts used in judgments refer to an open plurality of things falling under it, and in judgments, the open quantity of the subject-concept is determined. Judgments in their *copula*, in the way they connect the subject-and predicate-concepts, can be affirmative or negative and thus qualitatively determined. Third, in judgment, concepts are connected in such a way that epistemic relation of possible inferences between judgments is posited and so is relationally determined (1995, 61, 85). The first three headings are thus components of the logical form of judgments as such parts of an articulated unity for Brandt. While these first three headings constitute judgment as a unified proposition, Brandt holds that the fourth heading locates epistemic judgments in the syllogistically conceived process of knowledge (Ibid., 71, 85).

It is worth highlighting that on Brandt’s account the idea of the capacity to judge does not act as a mere selection or decision criterion. Instead, it serves as a guide to generate the four

¹⁰⁹ It is not entirely clear to me how Brandt uses the term ‘epistemic judgment.’ However, I understand it to be a judgment that has some sort of import for the content of cognition and as such can be related to other such judgments, as opposed to a judgment considered purely formally.

headings of the table in virtue of the form of judgment having these four basic dimensions. According to Brandt then, the idea that the understanding is a capacity to judge generates the different headings and moments in the table insofar as different aspects of the logical form of judgments constitute different acts of our higher capacity for cognition. As Brandt himself notes, the completeness of the table can be divided into (1) the completeness of the four headings, and (2) the completeness of the moments under each heading (1995, 4). Brandt's approach to (1) the inter-heading completeness of the four basic logical functions holds that the four headings represent the different traditionally conceived acts of the intellect. To my mind, this approach is largely correct, even though I disagree with some important details of Brandt's interpretation and with his claim that Kant includes an argument for that in the first section of the *Leitfaden* chapter.¹¹⁰ However, I think that in order to fully understand the kind of support Kant aims for (2) the intra-completeness of the table to have, we have to appeal to texts beyond the *Leitfaden* chapter, *pace* Brandt's methodological approach.¹¹¹

With these considerations concerning interpretations of the completeness of the table in the literature in hand, I now turn to provide my own view of the kind of argumentative support Kant means for the table to have.

¹¹⁰ In particular, I disagree with Brandt's claim that each epistemic judgment must be determined according to one and only of the moments in each heading.

¹¹¹ Additionally, as Hinsch and Mohr criticize, Brandt himself is unable to stay true to this methodological maxim to orient his reconstruction of Kant's argument for the completeness of the table as exclusively based on the surrounding passages (1994, 64f)

2.4 The Capacity to Judge as The Idea of the Whole and The Completeness of The Table of the Moments of Thinking

In this section, I undertake a critical discussion of the individual logical forms of judgment in the table of the moments of thinking and their relation to the idea of the understanding as a capacity to judge. My aim is to articulate the kind of cogent argumentative support that Kant aims to provide for the claim that the table of the logical forms of judgment is complete. As we have seen, the completeness of the table can be broken down into (1) the completeness of the four headings, and (2) the completeness of the three moments under each heading, such that there are four primary moments of logical form, each of which has three different elementary variants.

I think Kant intends the argumentative support for (1), the inter-heading completeness of the table, to be relatively indirect and implicit, for Kant does not explicitly argue for it in the first section of the *Leitfaden* chapter. The claim is essentially that the table of the moments of thinking represents all the traditional acts of the intellect, of our higher capacity for cognition (as studied by logicians in Kant's intellectual environment) by representing them as judgments determined according to the four basic dimensions of its logical form. I follow Brandt therefore in interpreting the table as containing the different traditionally conceived acts of the intellect: acts of judgment (which employ the power of judgment), acts of conception (which employ the power of the understanding in the narrow sense), acts of inference (which employ the power of reason), and of the systematization of cognitions. I also follow Longuenesse in interpreting the logical form of judgment as rich enough to allow acts of judgment to encompass the different kinds of intellectual acts. As she rightly notes, every concept is the predicate of a possible

judgment, every judgment is a possible premise in a syllogism [*Vernunftschluss*], and every syllogism is a possible combination of cognitions in a system (1998, 149-50). Thus, on my interpretation, traditionally conceived acts of conception are included in the table as quantitatively determined judgments, traditionally conceived acts of judgment are included as qualitatively determined judgments, traditionally conceived acts of reason or inferences are included as relationally determined judgments (serving as premises in categorical, hypothetical, and disjunctive syllogisms), and traditionally conceived acts of systematizing cognitions are included as modally determined judgments. It is in this sense, I contend, that all acts of the understanding in the broad sense can be traced back to judgments. However, I hold that Kant does not provide any extended argument for this inter-heading completeness in the first section of the table. Instead, I take it the argumentative support is less explicit and more indirect, relying largely on familiarity by contemporary readers on the logical tradition and the idea that the intellect has certain basic operations or acts. In short, I think that the main support within the *Leitfaden* chapter that Kant provides for the inter-heading completeness stems mainly from the depiction of the internal structure of the table. As we can see in part from Wolff's and Brandt's insightful observations, in the table's structure, Kant cleverly arranges the different logical forms of judgment in a way that systematically captures divisions in the acts of the intellect that would have been immediately apparent to those familiar with the logical tradition Kant inherited. For Kant's contemporaries, this table, with its four headings, would have seemed understandable to the extent that it systematizes the traditional division of the intellect's basic operations (where these are irreducible kinds of actions of our higher capacity of cognition) as judgments determined according to the four basic logical forms. I submit that Kant's claim that the basic

dimensions of the form of judgment encompass all the traditional acts of the intellect, i.e., that the four headings of the table are complete, would have been relatively evident to his informed contemporaries. They would have seen that this completeness embodied in a table that systematically orders and arranges all these acts with relatively little need for elaboration.

The argumentative support for (2), the intra-heading completeness of the table, is more explicit in that Kant himself gives arguments as to why the third moments must be included in the explanatory passage following the presentation of the table itself. Moreover, even though it is true, as Brandt notes, that Kant does not explicitly justify the triadic structure common to each of the headings as such in the *Leitfaden* chapter (1995, 4), as we shall see in the third *Critique* and some *Reflexionen* Kant does seem to provide explicit arguments as to why there are three logical functions (and more generally, as to why divisions in his critical philosophy are often trichotomous). Moreover, I argue that from a passage in the *Amphiboly* in which Kant connects the logical forms and the concepts of comparison or reflection, we can draw an argument not just for the claim that the third moments must be included in a complete table (as Kant gives in the *Critique*) but that the three moments under each heading are all the systematically complete ways in which the four basic dimensions of the content of judgment can be determined.

My contribution to the issue of the completeness of the table of the logical forms of judgment in this project centrally focuses on the intra-heading completeness (of the three moments under each four heading). In particular, I shall focus on arguing that the three logical forms under each heading constitute a complete and systematic presentation of all the possible logical forms under each heading. I do this by arguing that the three logical forms under each heading meet the conditions for synthetic *a priori* divisions from concepts, conditions drawn from a passage in the

third *Critique* in which Kant addresses the issue of why so many divisions in his critical philosophy are trichotomous. Ultimately, I conclude that this kind of argument does not seem to entitle Kant to the conclusion that these are the only possible elementary logical forms. It does, however, give a motivated place to each logical form, connecting it as a possible moment of an act of the capacity to judge. As such, it helps deliver on the project of the *Leitfaden* by connecting all logical forms to the guiding principle or idea of a whole that is the capacity to judge.

To see how Kant can provide an argument for the intra-heading completeness of the table, we turn to his discussion in the third *Critique* of why “divisions in pure philosophy almost always turn out to be threefold” (*KU* 5:197n). Here, he claims that this perhaps surprising fact “lies in the nature of the matter [*Sache*]” (*KU* 5:197n), explaining that divisions in pure philosophy are almost always synthetic a priori divisions from concepts. This is a different kind of division from analytic a priori divisions. These latter are twofold because they take place “in accordance with the principle of contradiction”). By contrast, synthetic a priori divisions from concepts are threefold because they proceed “in accordance with what is requisite for synthetic unity in general, namely (1) a condition, (2) something conditioned, (3) the concept that arises from the unification of the conditioned with its condition” (*KU* 5:197n). The divisions in the headings of all architectonic tables are such synthetic a priori divisions from concepts. As such, they manifest a structure where the first element contains a condition, the second contains something

conditioned (by this condition), and the third contains a combination of the conditioned with its condition.¹¹² A complimentary passage is *Reflexion* (5854) (18:370):

There are thus three logical functions [elementary, not derived] under a particular heading, and so also three categories. For two of these show [*zeigen*] the unity of consciousness in two opposites, the third, however, in its turn combines the consciousness on both sides. Other kinds of unity of consciousness cannot be thought. For, if A is a consciousness that connects [*verknüpft*] a manifold, and B is a consciousness that connects it in the opposite way, then C is the connection [*Verknüpfung*] of A and B.¹¹³

Though these two texts seem to be about more than one table, for our current purposes what matters is that together they claim the logical forms under each heading manifest a certain structure. According to this structure, the first form is the condition for the others in the same heading and connects a manifold in a particular way in a unity of consciousness (generated by an application of the first function). The second form is conditioned by the first and connects a manifold in the opposite way in the unity of an opposite consciousness (generated by an application of the second function). Finally, the third form is the combination of the conditioned with its condition, which constitutes the connection of these two opposite ways of combining representations in a unity of consciousness (generated by the application of the third function). In short, there is a structure of conditioning opposition between the first and second forms and then

¹¹² Wolff (1995, 164) also notes that Kant's divisions of the headings are synthetic a priori divisions from concepts. He then identifies synthetic a priori division from concepts with logical decomposition, spelling out the conditions for logical decomposition and then spelling out how the divisions of the headings in the table of moments of thinking meets those conditions (Ibid., 169-74). For my purposes, I do not need to commit to all the details of Wolff's account, but I do agree with him that the divisions of the table are complete as trichotomies because they proceed according to synthetic a priori divisions from concepts, such that the first member involves a condition, the second involves its conditioned, and the third involves the combination of the condition with the conditioned. I discuss the details of this in the next section.

¹¹³ *Es sind darum drey logische Functionen unter einen gewissen Titel, mithin auch drey Kategorien: Weil zwey derselben die Einheit des Bewusstseyns an zween oppositis zeigen, die dritte aber beyderseits Bewusstseyn wiederum verbindet. Mehr arten der Einheit des Bewusstseyns lassen sich nicht denken. Denn es sey a ein Bewusstseyn, welches ein mannigfaltiges Verknüpft, b ein anderes, welches auf entgegengesetzte Art verknüpft: so ist c die Verknüpfung von a und b.*

of combination (of these first two forms) in the third form under each heading. This structure allows the latter forms under each heading to arise essentially from the former. The first form brings about a certain connection among representations. The second form brings about a derivative connection among representations insofar as it essentially opposes the connection of the first form. Finally, the third form connects the first and the second ways of connecting representations together. Each form arises organically and systematically as an elementary moment of thinking, a way of combining discursive or conceptual representations.

My strategy going forward is to show how the first logical form under each heading conditions and opposes the second form and how the third combines the conditioned with its opposing condition. I seek thereby to show that the three logical forms under each heading thereby constitute an exhaustive synthetic *a priori* division from concepts of the concepts of <quantity of judgments>, <quality of judgments>, <relation of judgments>, and <modality of judgments>.¹¹⁴ By meeting these conditions, we can see these three logical forms exhaust the possible determinations of the basic dimensions of logical forms. For in meeting these conditions, these three members constitute (1) an initial determination of that basic dimension of logical form, (2) a subsequent determination that stems from the initial one insofar as it is conditioned by it and opposes it, (3) a final determination of that basic dimension that stems from the first two insofar as it combines them. That is, we thereby show that different determinations of a basic dimension of logical form are built up systematically and organically by the understanding's activities from one to the next to the last.

¹¹⁴ It is worth highlighting that this is the exact title of the heading within the *KrV*, i.e., “*Quantität der Urteile*”. The other headings omit the “*der Urteile*” but they seem clearly implied.

Given what Kant says about the trichotomous divisions of the headings of his tables, the understanding as a capacity to judge can explain why each heading contains three moments. It can do this to the extent that the moments of the different dimensions of the form of judgment can be seen to manifest this structure of conditioning opposition and combination, i.e., to the extent that the three moments under a moment meet the requirements of a synthetic *a priori* division from concepts. For in meeting these requirements, the divisions of these different dimensions of the logical form of judgment would seem to arise in a principled, organic manner from the nature of the understanding itself. If the three moments under all four headings meet these conditions, then it will be shown that these twelve different logical forms, *qua* complete determinations or moments of the four basic dimensions of the logical form of judgment constitute the essence of the capacity to judge as a whole, making possible all the kinds of judgments of which we are capable. This is, in outline, the way I submit the logical concept of the understanding as a capacity to judge acts as a principle that allows Kant to present the logical forms of judgment that constitute the essence of our capacity for discursive thought systematically and completely.

I turn to flesh out this outline, undertaking a critical discussion of the individual logical forms in the table of the moments of thinking and their relation to the idea of the understanding as a capacity to judge. I pursue my interpretive strategy by bringing together the different basic logical forms together with the corresponding concepts of reflection. Kant himself connects the logical forms and the concepts of reflection in a passage in the Amphiboly when he writes,

Prior to all objective judgments, we compare the concepts in order to reach/conceive of [*auf kommen*] the **identity** [*Einerleiheit*] (of many representations under one concept) for the sake of

universal judgments, or [to reach/conceive of] the **diversity** [*Verschiedenheit*] of the same [many representations under one concept] for the generation of **particular** judgments, [or to reach/conceive of] the **agreement** [*Einstimmung*] [of many representations under one concept] out of which they can become **affirmative** judgments, [or to reach/conceive of] the **opposition** [*Widerstreit*] [of many representations under one concept] out of which they can become **negative** judgments, etc. (A262/B317f).¹¹⁵

Kant therefore associates the first two concepts of reflection corresponding to each heading with the first two logical forms under a heading. Though he himself does not explicitly associate the third forms or moments with these concepts, I propose that we should interpret the third forms as deploying both the first and second concepts of reflection on each heading, albeit in different ways.¹¹⁶ Consequently, we can give texture to how the third form is meant to combine the first and the second by incorporating both concepts of reflections in one judgment in different ways.¹¹⁷ With this strategy in hand, I now turn to the discussion of the individual logical forms. In several respects, my discussion follows that of Wolff (1995, 170-4). However, my interpretation of the logical forms differs from his in important ways. For one, Wolff does not himself associate the third moments with the concepts of reflection. Furthermore, as I note below, I disagree with him that an “act of combination [*Actus der Verbindung*]” (1995 162n247) is required in order to combine the first two logical forms into a third. I argue instead that the

¹¹⁵ “Vor allen objektiven Urteilen vergleichen wir die Begriffe, um auf die **Einerleiheit** (vieler Vorstellungen unter einem Begriffe) zum Behuf der allgemeinen Urteile, oder die **Verschiedenheit** derselben, zur Erzeugung besondere, auf die **Einstimmung**, daraus **bejahende**, und den **Widerstreit**, daraus **verneinende** Urteile werden können, usw. zu kommen” (A262/B317f).

¹¹⁶ My overall interpretive strategy associates not just the logical forms but also the logical functions with these concepts of reflections, considering these functions as ordering representations in general (rather than discursive representations) by treating them according to the relevant concepts of reflection. I spell out in detail on how the logical functions relate to the concepts of reflection in the next chapter.

¹¹⁷ What these ways depend on the particular concepts of reflection in question.

third logical form combines the first and the second merely in the sense that it shares properties with both of these, not in the sense that it includes both the first and second logical forms as constituents or parts.¹¹⁸

2.4.1. Forms of Quantity

The first basic dimension or primary moment of the logical form of judgments is the quantity of judgments. It concerns the quantity of the representations falling under the subject-concept of which the predicate-concept is predicated. As such, different quantitatively determined judgments constitute different traditionally conceived acts of conception insofar as they are different ways of grasping a concept as the subject of a judgment. A judgment of is quantitatively determined (and so exercises a basic function of quantity) insofar as it grasps the subject-concept of a judgment and the concepts predicated of it as applying to a quantity of representations. This use of concepts therefore consists of the exercise of the understanding in the narrow sense as a capacity to grasp concepts or universal representations as such.¹¹⁹

Two opposing kinds of quantitatively determined judgments (and so two quantitative logical forms) can be distinguished analytically, each of which can be described as a judgment that employs one of the two concepts of reflection of quantity, viz., <identity> and <diversity(difference)>.¹²⁰ Either the subject-representations grasped under the subject-concept are treated as having identical marks (partial representations), or they are treated as having

¹¹⁸ As I elaborate in chapter four, the third categories under each heading do require a “special act” to bring about this third category as a concept that combines the first two categories in a certain way. There is thus, a key asymmetry here between the table of the moments of thinking and that of the categories.

¹¹⁹ Or as in the *Dohna-Wundlacken Logic*, “the faculty of representation of the universal as such” (*DWL* 9:703).

¹²⁰ Wolff makes similar claims in his interpretation (1995, 170, 153-4). However, his interpretation of the quantitative logical forms concerns a predicative use of concepts as partial marks of representations (*Ibid.*, 143-4).

different marks.¹²¹ In the first case, the quantitative determination of a judgment consists in the act of grasping the subject-concept in such a way that the predicate-concept is applied to the whole quantity of subject-representations falling under the subject-concept (in this way, the subject-representations under the subject-concept are treated and represented as identical). This is precisely act of determining or structuring a judgment according to the universal logical form, the first member of the division of quantitative logical forms. An example of such a universal judgment is ‘All humans are (not) mortal.’ In this judgment, the concepts of <human> and <mortal> are combined in such a way that <mortal> is predicated of all the subject-representations falling under (or outside the extension of) <human>. In the second case, the quantitative determination of a judgment consists in the act of grasping the subject-concept in such a way that the predicate-concept is applied to only an undetermined partial quantity of subject-representations falling under the subject-concept (in this way, the subject-representations are treated and represented as different). This is precisely the act of structuring a judgment according to the particular logical form, the second member of the division of quantitative logical forms. An example of a particular judgment is ‘Some humans are (not) women.’ In this judgment, the concepts of <human> and <woman> are related in such a way that <woman> is predicated only of a subset of subject-representations falling under (or outside the extension of) <human> though it is left undetermined exactly how many subject-representations fall under the concept.

¹²¹ Wolff gives a somewhat different account of how the quantitative logical forms connect with the quantitative concepts of reflection (1995, 143-4, 153). He rightly notes the concepts of reflection play an important role with respect to the headings of the table and associates heading of quantity with the concept pair of <identity> and <diversity>. For Wolff, universal judgments are describable as judgments that state that one and the same partial representation expressed by the predicate-concept is contained in the subject-representations that fall under the subject concept. Particular judgments are describable as judgments that allow that the subject-representations under the subject-concept to contain partial marks that are different from the predicate-concept (Cf. 1995, 144).

We can see that these two logical forms connect manifolds of discursive representations (subject- and predicate-concepts) in opposing way. For in the universal form, the predicate is predicated of a determined whole quantity of subject-representations (all those falling under the subject-concepts). By contrast, in the particular form, it is not predicated of a determined whole quantity of subject-representations. Rather, it is predicated of an undetermined subset of those representations. Moreover, the universal logical form contains the condition of the particular logical form insofar as it specifies the whole of subject-representations, an indeterminate proper subset of which the particular logical form relates to a predicate. Equivalently, the particular logical form specifies something conditioned by the universal logical form. Thus, the first two members of the division of quantitative logical forms meet the requirements we have seen Kant specifies for members of a synthetic a priori division from concepts. If the third member of this division is to meet these requirements, then it must consist of a combination of the opposing ways of ordering manifolds of representations that constitute the first two members. That is, this third logical form must consist of a combination of the relevant condition with its conditioned.

The singular form meets these requirements, for it consists in the act of relating a predicate-concept to a subject-concept in such a way that it is predicated of a determined quantity of subject-representations, but not of the whole quantity of subject representations falling under the subject-concept. Rather, it is predicated of a single determined subject-representation.¹²² In other words, the singular logical form combines (1) the property of the

¹²² Because the subject-concept in singular judgments is considered as having as its extension one individual, singular judgments “have no domain at all [*gar keinen Umfang haben*]” (A71/B96). Kant notes that singular judgments relate to generally valid judgments “as unity [*Einheit*] relates to infinity [*Unendlichkeit*]” (Ibid.). Huaping Lu-Adler helpfully explains that the mention of unity here should not be taken as a reference to the category of quantity. Rather “the notion of *Einheit* at (A71/B96) is meant only to capture the distinctive logical

universal logical form of relating predicate-concepts to a determined quantity of subject-representations with (2) the property of the particular logical form of relating predicate-concepts to a proper subset of the whole quantity of subject-representations falling under the subject-concept. A singular judgment can thereby be seen as employing both the concepts of <identity> and <diversity>, for it treats the subject-concept as designating an individual that is identical to itself and different from others in being the single subject-representation that is thought of as falling under the predicate-concept. An example of a judgment determined according to this form is ‘This human is a philosopher.’ In this judgment, the concepts of <human> and <philosopher> are related in such a way that <philosopher> is predicated of a single subject-representation falling under <human>, thereby designating a single individual falling under this predicate (who is therefore represented as a philosopher).

It is worth highlighting that the universal logical form alone has the property of relating a subject-concept to the whole quantity of subject-representations under the subject-concept. As such, the singular logical form does not plausibly contain within itself the universal logical form. It merely shares a property with it. A parallel point holds for the particular logical form: it alone has the property of relating a subject-concept to an undetermined quantity of representations falling under the subject-concept. Thus, the singular logical form does not plausibly contain the particular logical form. It merely shares a property with this second form.¹²³ *Pace* Wolff then

feature of singular judgment qua cognition in general ($x-a-b$), namely that its subject concept signifies exactly one object ($=x$)” (2014, 383)

¹²³ It is worth noting, as Lu-Adler does (2014, 375), that the distinction between universal and singular judgments can be made within pure general logic and was made by Kant’s predecessors. This includes most notably the Port Royal Logicians (Antoine Arnauld and Pierre Nicole 1996, §1.6 (pp. 50-51), §2.3 (p. 106) but also Kant’s immediate predecessors, including Alexander Baumgarten (1773 §§142-3, 135-41), Martin Knutzen (1744, §141), Christian Crusius (1747, §§230-1), and Christian Wolff (1740 §§113-14, 240-1). They all observed a two-tiered distinction (1) between singular and general (common) judgments (this concerns whether the subject-concept

nothing in this third element requires an appeal to a special act of the understanding that combines the whole of the first logical form and the whole of the second logical form in a way that yields the third.

We have seen that the three different quantitative logical forms in the table meet the requirements of trichotomous synthetic *a priori* division from concepts. Each quantitative logical form thereby occupies a well-motivated and systematic place as an elementary act of the capacity to judge. In meeting these requirements, this trichotomy constitutes an exhaustive such division of the concept of <quantity of judgments>. In this way, the forms of judgment under the heading of quantity constitute a complete and systematic presentation of one of the four basic dimensions of the logical form of judgments: the quantity of judgments. And as we have seen, these three quantitative forms of judgment constitute the traditional logical acts of conception.

2.4.2 Forms of Quality

The second basic dimension or primary moment of the logical form of judgment is the quality of judgments. It concerns the quality predicated of the (quantitatively determined) subject-concept and its subsumed representations. A judgment is qualitatively determined (and so exercises a basic function of quality) insofar as it subsumes a subject-concept under a

represents a single individual or a multitude and so has an extension), and (2) within common judgments between universal and particular judgments (this concerns whether the subject-concept's extension is 'taken in its entirety' or 'taken only through an indeterminate part of its extension') (2014, 373-4). However, from the perspective of pure general logic, logicians have no reason to grant singular judgments the status of a basic form, for they consider only the relationships between judgments in syllogisms. From this syllogistic point of view, the validity of an argument is a matter of whether the predicate involved in each judgment is affirmed/denied of the subject "through the entirety or only an indeterminate part of its extension" (Ibid., 375). In both universal and singular judgments, the predicate applies to its subject without exception and so the predicate is affirmed/denied through the entirety of the extension of the subject-concept. In singular judgments' the concept is a singular object, while in universal judgments, it is a multiplicity. However, in both cases the predicate always applies to the logical subject "without exception (*Ausnahme*)" (A71/B96) (Ibid., 381). The logical form of singular judgment thus plays no unique inferential role over and above that of universal judgments. So, they can be treated equally for the purposes of logicians.

predicate-concept so as to predicate this concept of subject-representations.¹²⁴ As such, different qualitatively determined judgments constitute different traditionally conceived acts of the power of judgment as the capacity to subsume under universals. The qualitative determination of judgments consists of the exercise of the power of judgment as the capacity to subsume particulars under rules, i.e., universals (A132/B171).¹²⁵ As Wolff points out, two opposing kinds of qualitatively determined judgments (and so two qualitative logical forms) can be distinguished analytically (1995, 171), each of which can be described as a judgment that employs one of the two concepts of reflection of quality (<agreement> and <opposition> (Ibid., 145, 153)). Either the subject-concept (and the representations falling under it) is treated as agreeing with the predicate-concept, or it is treated as opposing [*widerstreitet*] it. In the first case, the qualitative determination of a judgment consists in the act of representing the subject-concept as agreeing with the predicate-concept so that it is predicated of the subject representations. This is precisely the act of structuring or determining a judgment according to the affirmative logical form. An example of such an affirmative judgment is ‘(All or some) humans are rational.’ In this judgment, the concepts of <human> and <rational> are combined in such a way that <human> is

¹²⁴ Wolff holds that a judgment of the understanding is qualitatively determined (and so exercises a basic function of quality) insofar as it relates the subject-concept to things and therefore mediately relates the predicate-concept to things by means of a determined representation of things (1995, 144-5), noting that this way of thinking of the quality of judgments stems from logical tradition: “*die Urteilsqualität nach traditioneller Lehre einen unmittelbaren Gegenstandsbezug des Urteils selbst zum Ausdruck bringt*” (1995, 144). He then claims that this non-predicative use of subject-concepts involves subsuming particular subject-representations under a universal subject-concept so that the relation between a subject-concept and a predicate-concept is a relationship between a determined representation of things and a predicate-concept (Ibid., 92-3, 171). However, Wolff does not provide examples of explicit reference to an immediate relationship of judgments or concepts to things. I can find no such reference at least in the *Port Royal Logic*. Its treatment of affirmation and negation holds that these acts respectively consist of regarding two ideas as “convenient [*convenant*]” or “repugnant [*répugnant*]” to each other (1992, §2.3 105-6). As I note below then, we can take on what is right about Wolff’s interpretation without agreeing that there is an immediate use of concepts.

¹²⁵ Or as Kant puts it in the *Vienna Logic*, the power of judgment is “the capacity for deciding whether a rule ought to be used at this place, hence it is the capacity for subsuming under a rule” (*VL* 9:883), or in the *Dohna-Wundlacken Logic*, “the capacity of representing the particular as contained under the universal...or the capacity of subsumption” (*DWL* 24:703).

treated as agreeing with <rational> so that <rational> is predicated of (all or some) humans falling under <human>. In the second case, the qualitative determination of a judgment consists in the act of representing the subject-concept as opposing the predicate-concept. This is precisely the act of structuring a judgment according to the negative logical form, the second member of the division of qualitative logical forms. An example of such a negative judgment is '(All or some) brute animals are not rational' In this judgment, the concepts of <brute animal> and <rational> are combined in such a way that <brute animal> is treated as opposing <rational> so that <rational> is denied of (some or all) brute animals falling under <brute animal>.

We can see that these two logical forms connect manifolds of discursive representations in opposing ways. In the affirmative logical form, the subject-concept is determined as agreeing with the predicate-concept, while in the negative logical form, it is determined as opposing and so as not agreeing with the predicate-concept. Moreover, the affirmative logical form contains the condition of the negative logical form insofar as it positively determines the subject-concept in some ways rather than others such that one can specify that the subject-concept is not determined in certain ways. Equivalently, the negative logical form consists of something conditioned by the affirmative logical form. This can also be seen in that affirmative judgments actually give positive content to our judgments, while as Kant notes, “negative judgments have the special job solely of preventing error [*den Irrtum abzuhalten*]” (A709/B737).¹²⁶ We see then that the first two members of the division of qualitative logical forms meet the requirements Kant sets for members of a synthetic a priori division from concepts. If the third member of this

¹²⁶ Wolff is therefore right to note that negative judgments are logically weaker than affirmative and infinite judgments (1995, 160).

division is to meet these requirements, then it must consist of a combination of the opposing ways of ordering manifolds of representations that constitute the first two members.

The infinite logical form meets these requirements, for it consists in the act of representing the subject-concept as agreeing with a predicate, but not in a way that positively determines the subject-concept and so expands our cognition. Rather, it represents the subject-concept (and what falls under it) as merely not being some way. In this way, as Kant puts it, the subject-concept is not “determined affirmatively [*bejahend bestimmt*]” and does not in the least grow [*im mindesten wächst*]” (A72f/B98). In other words, the infinite logical form combines (1) the property of the affirmative logical form of determining subject-concepts by having a predicate-concept agree with it, together with (2) the property of the negative logical form of not expanding the content of our judgments or cognition. In this way, the infinite logical form consists of neither an expansion of cognition (as the affirmative one does) nor a mere prevention of error (as the negative one does), but rather a limitation of cognition.¹²⁷ An infinite judgment can thereby be seen as employing both the concepts of <agreement> and <opposition> in different ways. For it determines the subject as agreeing with a predicate but in a way that opposes the subject-representations in that it does not positively determine them. An example of a judgment determined according to this form is the judgment ‘the soul is non-mortal’ [*die Seele ist nichtsterblich*] (A72/B97). In this judgment, the subject-concept <soul> is determined as

¹²⁷ It is worth noting that the difference between affirmative and infinite judgments, like that between universal and singular judgments can be distinguished in pure general logic. However, for its purposes, pure general logic can treat singular judgments as instances of universal judgments, given that they play no different inferential role in syllogisms. In both cases, the logical predicate is affirmed of the logical concept, even if the logical predicate in infinite judgment contributes no positive determination of the logical subject. It is only from the perspective of transcendental logic, which considers the understanding's relations to *Gegenstände* that we see singular judgments as properly distinguished from universal ones and infinite judgments are properly distinguished from universal ones, insofar as they involve a different mental activity, a different logical function. As Kant puts it, the “really merely limiting [*wirklich bloß beschränkend*]” character of the infinite logical form is merely limiting “in regard to the content of cognition in general [*in Ansehung des Inhalts der Erkenntnis überhaupt*]” (A73/B98).

agreeing with the concept of <non-mortal>, so that <non-mortal> is predicated of the soul but in a way that yields no positive determination of <soul> and thus of representations and *Gegenstände* falling under <soul>.

It is worth highlighting that the affirmative logical form alone has the property of expanding the property of cognition in a positive sense. So, the infinite logical form does not plausibly contain within it the affirmative logical form. It merely shares a property with it. Similarly, the negative logical form alone has the property of relating a predicate-concept as disagreeing with a subject-concept, so the infinite logical form does not plausibly contain the negative logical form within it but merely shares a property with it. Once again, nothing in this third element requires an appeal to a special act of the understanding that combines the whole of the first logical form and the whole of the second logical form so as to generate the third.¹²⁸

If what I have argued in this section is correct, then the three different qualitative logical forms in the table meet the requirements for trichotomous synthetic *a priori* divisions from concepts. Each qualitative logical form thereby occupies a well-motivated and systematic place as an elementary act of the capacity to judge. In meeting these requirements, this trichotomy constitutes an exhaustive such division of the concept of <quality of judgments>. In this way, we can see that the elements under the heading of quantity constitute a complete and systematic presentation of the second of the four basic dimensions of the logical form of judgments, namely,

¹²⁸ Here it is worth emphasizing that nothing in this discussion necessitates thinking that the subject-concept immediately relates to *Gegenstände*, as Wolff contends (1995, 144), and which we have seen Kant explicitly contradicts at A68/B93. We can understand the qualitative logical forms as involving the agreement/disagreement of the subject- and predicate-concepts without holding the subject-concept immediately relates to *Gegenstände*. Indeed, more plausibly, it relates to intuitions, which then immediately relate to *Gegenstände*. This mediate relation, however, in no way prevents the qualitative logical forms of judgments from essentially concerning the positive or negative determination of representations falling under subject-concepts with respect to the predicates of judgments.

the quality of judgments. And these three qualitative logical forms, as we have seen, constitute the traditionally conceived acts of the power of judgment.

2.4.3. Forms of Relation

The third basic dimension or primary moment of the logical form of judgment is the relation of judgments. It concerns the relations that are thought in judgments (both within and between judgments). A judgment is relationally determined (and so exercises a basic function of relation) insofar as it determines inferential relations between judgments that share the concepts of the relationally determined judgment. This relational determination of judgments treats judgments as rules under which other judgments can fall so as to constitute a syllogism or inference of reason [*Vernunftschluss*]. As such, different relationally determined judgments constitute different acts of the power of reason insofar as they are different ways of drawing mediate inferences according to principles (A299/B355).¹²⁹ It is therefore insofar as judgments are relationally determined that “[j]udgments are acts of the understanding and of reason [*Urtheile sind Handlungen des Verstandes und der Vernunft*]” (*Refl.* 2142, 16:250). As Wolff notes, two opposing kinds of relationally determined judgments can be distinguished analytically (1995, 172), each of which can be described as a judgment that employs one of the two concepts of reflection of relation (<inner> and <outer>).¹³⁰ Either thinking the judgment consists of thinking

¹²⁹ Kant notes in his discussion on reason in general, in the second section of the introduction to the Transcendental Dialectic, that although reason “has obviously long since been defined by the logicians as the capacity of drawing inferences mediately,” this is limited to the use of reason as a logical faculty. He instead provides a definition [*Erklärung*] of “this supreme faculty of cognition” as “the **capacity of principles**” which distinguishes it from the understanding, which in the Transcendental Analytic he defines as “the faculty of rules” (A299/355-6, cf. A126).

¹³⁰ My interpretation differs from Wolff in how we relate the concepts of reflection and the logical forms of relation. According to Wolff (1995, 145-7), a judgment is relationally determined insofar as it relates non-predicatively used

a relation that asserts the unconditional truth of a judgment (i.e., it asserts the truth as inner or internal to that judgment) or thinking it consists of thinking a relation that asserts the conditions for the truth of a judgment (i.e., it asserts the outer or external conditions for the truth of a judgment). In the first case, the relational determination of a judgment consists in the act of relating two concepts in a single (atomic) judgment, unconditionally asserting the truth of this judgment as internal to that act. This is precisely the act of determining or structuring a judgment according to the categorical logical form.¹³¹ An example of such a categorical judgment is ‘All humans are rational.’ In this judgment, the truth of the judgment ‘All humans are rational’ is unconditionally asserted. This judgment thereby asserts the major premise of categorical syllogisms in whose minor premise one judges that something falls under the concept of human and on that basis infers that something falls under the concept of rational. That is, this judgment implicitly contains categorical syllogisms or *Vernunftschlüsse* and thus inferential acts of reason. In the second case, the relational determination of a judgment consists in the act of relating two judgments such that the truth of one judgment (the ground) serves as the condition under which the other judgment (the consequence) is true but without asserting the truth of either component judgment.¹³² This is precisely the act of structuring a judgment according to the hypothetical logical form. An example of such a hypothetical judgment is ‘If there exists a perfect justice, then persisting evil will be punished’ [*Wenn eine vollkommene Gerechtigkeit da ist, so wird der*

concepts in a judgment to other possible judgments in which the same concepts appear. This non-predicative use of concepts involves representing acts of judgment as (sometimes implicit) acts of inference (Ibid., 110).

¹³¹ Kant notes as much in the *Jäsche Logic*: “In categorical judgments nothing is problematic, rather, everything is assertoric” (9:105). He contrasts this with hypothetical judgments in which “only the *consequentia* is assertoric” (Ibid.), as I discuss further below.

¹³² Kant observes that in hypothetical judgments, the ground and consequent judgments are both asserted problematically such that they “in themselves are true remains unsettled [*unausgemacht*],” and “[i]t is only the implication [*Konsequenz*] that is thought by means of this judgment” (A73/B98). I thank Timothy Rosenkoetter for first helpfully pointing out to me (in conversation) that for Kant, hypothetical judgments involve thinking *only* of the connection between the ground and consequent propositions as true.

beharrlich Böse bestraft] (A73/B98). In this judgment, it is asserted that the truth of the judgment ‘There exists a perfect justice’ serves as the condition for the truth of the judgment ‘Persisting evil is punished’ without settling whether ‘There exists a perfect justice’ or ‘Persisting evil is punished’ is true (A73/B99). This judgment thereby asserts the major premise of possible syllogisms such as *modus ponens*, *modus tollens*, and hypothetical syllogisms.¹³³

We can see that these two relational logical forms connect manifolds of representations in opposing ways. In the categorical logical form, the truth of an atomic judgment is unconditionally asserted, while in the hypothetical logical form, only the condition for the truth of a judgment is unconditionally asserted. Moreover, the categorical logical contains the conditions for the hypothetical logical form insofar as only categorical judgments assert the truth of a content unconditionally. For this reason, Kant notes in the *Prolegomena* that “in the logical, categorical judgments are the basis of all others [*im Logischen kategorische Urtheile allen andern zum Grunde liegen*]” (4:325*) and in the *Vienna Logic* that “[c]ategorical judgments constitute the *basis* of all the remaining ones [*machen die basin aller Übrigen aus*]” (VL 24:933). Categorical judgments lie at the basis of hypothetical and disjunctive judgments insofar as only they assert the unconditional truth of judgments that are constituents of hypothetical and disjunctive judgments. This is in keeping with Kant’s discussion of the relation of judgments in the second section of the *Leitfaden*, where he notes that categorical judgments relate two concepts, while hypothetical and disjunctive judgments relate judgments to each other (A73/B98). Though there can certainly be hypothetical and disjunctive judgments nested within each other, ultimately these complex judgments need to bottom out in atomic judgments that

¹³³ A perhaps more familiar example of a hypothetical judgment is ‘If it rains, then it will be wet.’

relate a subject and a predicate, i.e., in categorical judgments. Without a categorical judgment, a hypothetical judgment can never actually constitute the true assertion of an atomic judgment from which the truth of other atomic judgments can be inferred. Thus, the first two members of the division of relational logical forms seem to meet the requirements we have seen Kant sets for members of a synthetic a priori division from concepts. If the third member of this division is to meet these requirements, then it must consist of a combination of the opposing ways of ordering manifolds of representations that constitute the first two members, a combination of the relevant condition with its conditioned.

The disjunctive logical form meets these requirements, for it consists in the act of unconditionally asserting the truth of a judgment (the disjunctive judgment as a whole) by unconditionally asserting the conditions for the truth of its component judgments.¹³⁴ In other words, it combines (1) the property of the categorical logical form of asserting the truth of a judgment independent of any condition with (2) the property of hypothetical judgments of asserting the conditions under which component judgments are true (and false): if the other disjunct judgments are false, then the remaining one is true, and if any one of the disjunct

¹³⁴ As Kant notes in his observations after presenting the table of the moments of thinking, “the disjunctive judgment contains the relations of two or more propositions [*Sätze*] to one another, though not the relation of sequence [*Abfolge*], but rather that of logical opposition [*Entgegensetzung*], insofar as the sphere of one judgment excludes that of the other, yet at the same time the relation of community, insofar as the judgments together exhaust the sphere of cognition proper” (A73/B99). Thus, although the disjuncts are mutually exclusive, they stand in “a certain community of cognitions, consisting in the fact that they mutually exclude each other, yet thereby determine the true cognition **in its entirety [im Ganzen]**” (A74/B99). He fleshes this out in the *Jäsche Logic*, noting that the disjunct judgments related by the disjunctive logical form, “are all problematic judgments, of which nothing else is thought except that, taken together as parts of the sphere of a cognition, each the complement of the other toward the whole (*complementum ad totum*), they are equal to the sphere of the first” (JL 9:107). As such, “it follows that in one of these problematic judgments the truth must be contained or —what is the same —that one of them must hold *assertorically* because outside of them the sphere of the cognition includes nothing more under the given conditions, and one is opposed to the other, consequently neither something *outside* them *nor* more than one *among* them can be true” (JL 9:107). Kant holds this relation between the disjunctive logical form and the logical forms of modality, where all the disjuncts are problematic and one of them holds assertorically is “the peculiar character of all disjunctive judgments, whereby their specific difference from others, in particular from categorical judgments, is determined as to the moment of relation” (Ibid.).

judgments is true, then the others are false. In this way, the disjunctive logical form structures judgments according to a reciprocal relation of logical opposition and community. This is confirmed by Kant's discussion of disjunctive judgments in the second section of the *Leitfaden* chapter. Here, he notes that thinking a disjunctive judgments consists of thinking a relation between judgments, "but not that of sequence, rather that of logical opposition, insofar as the sphere of the one excludes the sphere of the others but also at the same time that of community, insofar as together they fill out the sphere of actual cognition; thus [the relation thought in disjunctive judgments] is a relation of the parts of a sphere of a cognition, where the sphere of each part is the complement of that of the others in the whole conceptual totality [*Inbegriff*] of the divided cognition " (A74/B99).¹³⁵ A disjunctive judgment can thereby be seen as employing both the concepts of <inner> and <outer> albeit in different ways. For such a judgment unconditionally, i.e., internally, asserts the truth of a (complex, disjunctive) judgment, but only insofar as it asserts the outer conditions for the truth of its constituent disjunct judgments. An example of a judgment determined according to this form is the judgment 'The world exists either through blind chance, or through inner necessity, or through an external cause' [*Die Welt ist entweder durch einen blinden Zufall da, oder durch innre Notwendigkeit, oder durch eine äußere Ursache*'] (A74/B99). In this judgment, the judgments (1) 'The world exists through blind chance' (2) 'The world exists through inner necessity' (3) 'The world exists through an external cause' are related in such a way that it is asserted that at most and at least one of them is true and consequently that if any one of them is true, then the others are false, and if any two are

¹³⁵ "aber nicht der Abfolge, sondern der logischen Entgegensetzung, so fern die Sphäre des einen die des andern ausschließt, aber doch zugleich der Gemeinschaft, in so fern sie zusammen die Sphäre der eigentlichen Erkenntnis erfüllen, also ein Verhältnis der Teile der Sphäre eines Erkenntnisses, da die Sphäre eines jeden Teils ein Ergänzungsstück der Sphäre des andern zu dem ganzen Inbegriff der eingeteilten Erkenntnis ist" (A74/B99).

false, then the remaining one is true. This judgment thereby implicitly asserts the major premise of possible disjunctive syllogisms.¹³⁶

Once again, it is worth highlighting that the categorical logical form alone has the property of relating a subject- and predicate-concept so as to assert unconditionally the truth of an *atomic* judgment. So, the disjunctive logical form does not plausibly contain the categorical logical form but merely shares a property with it. Similarly, the hypothetical logical form alone has the property of merely asserting the condition under which a judgment is true without unconditionally asserting the truth of any judgment. So, the disjunctive logical form only shares a property with the hypothetical logical form. Once again then, *pace* Wolff nothing in this third form requires an appeal to a special act of the understanding to combine the first and second form into the third.

We have seen that the three different relational logical forms in the table meet the requirements of the trichotomous synthetic *a priori* division from concepts. Each relational logical form thereby occupies a well-motivated and systematic place as an elementary act of the capacity to judge. In meeting these requirements, this trichotomy constitutes exhaustive such division of the concept of <relation of judgments>. Thus, we can see that the elements under the heading of relation constitute a complete and systematic presentation of the third of the four basic dimensions of the logical form of judgments, namely, the relation of judgments. And, as we have seen, these three logical forms constitute traditionally conceived acts of reason (major premises in syllogisms).

¹³⁶ Another example of a disjunctive judgment would be ‘a triangle is either scalene, isosceles, or equilateral.’

2.4.4. Forms of Modality

In approaching the critical discussion of the logical forms of modality, it is worth reminding ourselves that in the second section of the *Leitfaden* Kant notes, “the modality of judgments is quite a special function of them, which is distinctive in that it contributes nothing to the content of judgment...but rather concerns only the value of the copula in relation to thinking in general” (A74/B100).¹³⁷ In other words, the modality of our judgments specifies different ways that our intellect or higher capacity of cognition in general relates to the content of a judgment (content constituted by the determination of a judgment according to the previous three basic logic forms). Kant expands on this by characterizing problematic judgments as those “in which one assumes the affirmation or denial as merely possible (arbitrary) [*wo man das Bejahen oder Verneinen als bloß möglich (beliebig) annimmt*]” (Ibid.), assertoric judgments as those in which the affirmation or denial is “considered as actual (true) [*als wirklich (wahr) betrachtet wird*]” (A74f/B100), and finally apodictic judgments as those in which the affirmation or denial is “regarded as necessary [*als notwendig ansieht*]” (A75/100).

The exact interpretation of the modal forms and functions is a difficult issue in Kant scholarship. To my knowledge, Timothy Rosenkoetter has given the most convincing interpretation of the modal logical functions to date.¹³⁸ Rosenkoetter interprets the modal logical functions as ways the understanding takes up contents (themselves provided by the exercise of the first three logical functions). His interpretation largely centers around the act of judging *q*, holding that this act is problematic iff it is partially constitutive of the act that its judge *not* take

¹³⁷ “die Modalität der Urteile ist eine ganz besondere Funktion derselben, die das Unterscheidende an sich hat, daß sie nichts zum Inhalte des Urteils beiträgt...sondern nur den Wert der Copula in Beziehung auf das Denen überhaupt angeht” (A74/B100).

¹³⁸ Rosenkoetter (2013, 383-442).

herself to be aiming at truth (Ibid. 389), assertoric iff it is partially constitutive of the act that its judge take herself to be corresponding to an object that makes q true (Ibid., 388), and apodictic iff it is partially constitutive of the act that its judge takes herself to be normatively beholden to inferential laws connecting q to other representations that serve as its ground (Ibid., 393).¹³⁹

Although illuminating and well-argued, Rosenkoetter's interpretation is to my mind not without its problems. In particular, his essentially negative characterization of the problematic function would seem to make the second member of the division of the modal functions (the assertoric function) into the condition for the first (the problematic function). However, as we have seen Kant claims in the third *Critique* (*KU* 5:179n), in any synthetic unity (and in synthetic a priori divisions of concepts like <modality of judgments>), the first member should serve as the condition for the second. There is also a worry concerning Rosenkoetter's characterization of the assertoric function, which Houston Smit has pointed out to me. For Rosenkoetter, the exercise assertoric function involves taking oneself to be corresponding to an object that makes the judgment true. However, *pace* Rosenkoetter in constructing a *reductio ad absurdum* argument, it seems that one can assert a judgment (and so exercise the assertoric function) without taking oneself to correspond to an object because one seeks to prove that there is no such object (the argument seeks to prove the judgment is false). It seems then that Rosenkoetter does not quite capture what is peculiar about how assertoric function takes up contents. Moreover, Rosenkoetter's interpretation does not relate the modal functions or forms to the two corresponding concepts of reflection (<matter> and <form>). I suggest that we might improve

¹³⁹ In his paper, Rosenkoetter argues in detail and to my mind convincingly that his interpretation of the modal functions is to be preferred to alternative ones, which he calls The Alethic Modality (Ibid., 384f), and Quantifying over Acts View (Ibid., 387f).

upon Rosenkoetter's interpretation of the modal functions and forms of judgment by giving an interpretation that characterizes the different modal forms using these concepts of reflection and in which the problematic function/form clearly serves as the condition for the assertoric function/form. I should emphasize, however, that there is much that I agree with in Rosenkoetter's interpretation, including his take on the apodictic logical form. I proceed then to build on his interpretation hoping to improve on the ways I think it falls short.¹⁴⁰

I begin by noting that Kant's characterization of these different modally determined judgments seems at arm's length, for these judgments are described with the language of "assuming [*annehmen*]" "considering [*betrachten*]" and "regarding [*ansehen*]" as possible, actual, and necessary, rather than being determined as such. Of particular importance is Kant's use of *ansehen* rather than *einsehen* in describing apodictic judgments, for the notion of *Einsicht* or *insight*, which Kant relates to having an apodictic consciousness of how a ground necessitates a consequence (Smit, 2000).¹⁴¹ That is, the exercise of the apodictic logical function to determine a judgment according to the apodictic logical form need not involve having insight into the content of a judgment and therefore an apodictic consciousness of how and why this content is necessary. Generally, the at-arms'-length language Kant uses in this passage suggests that the exercise of the modal logical functions to determine judgments according to the modal logical forms does not constitute relatively ambitious intellectual achievements like cognition,

¹⁴⁰ Rosenkoetter's focus is on the modal functions, but he seems to conceive of logical forms and functions as very closely related. Since my focus here is on the logical forms, I will interpret Rosenkoetter as also discussing logical forms.

¹⁴¹ I follow Houston Smit in interpreting Kant as holding that to have insight into something is to cognize it a priori, from the grounds that make it true (2009, 193). I should note that Smit has developed his interpretation in several ways, including by relating the act of having insight into something to seeing how the essence or essences that determine its possibility render it necessary (2019 b, 48).

understanding, or insight.¹⁴² Kant's discussion of the modal logical forms instead highlights the role the different modally determined judgments play in syllogistic reasoning:

“The problematic proposition is therefore the one that expresses only logical possibility (that is not objective), i.e., a free choice to let such a proposition count as valid, a merely arbitrary assumption of the same [the problematic proposition] in the understanding. The assertoric [proposition] speaks of logical actuality or truth, as say in a hypothetical inference of reason the antecedent of the major premise occurs problematically, while that in the minor occurs assertorically and indicates that the proposition is already connected to the understanding according to its laws; the apodictic proposition thinks for itself the assertoric as determined through these laws of the understanding itself” (A75f/B101).¹⁴³

Kant here claims that thinking the antecedent of a hypothetical judgment (e.g., in a major premise) essentially requires determining the antecedent component judgment using the problematic logical form, thereby representing it as merely thinkable and as merely logically possible. Similarly, he claims that thinking the minor premise of a syllogism essentially requires determining the judgment according to the assertoric logical form, thereby representing it as logically true. He suggests something similar for the apodictic logical form: that it is essentially required for thinking the conclusion of a syllogism.

As Rosenkoetter shows (2013, 385) shows, Kant's focus on syllogistic reasoning as a way of explicating the modal functions can be clarified by comparing it with Kant's discussion of syllogisms in the second section of the introduction of Transcendental Dialectic: “On the logical use of the understanding.” Here Kant writes,

¹⁴² In the *Blomberg Logic*, Kant gives characterizations of these cognitive achievements, calling them “degrees of cognition” (BL 24:135-6. For example, understanding is characterized as cognition of something distinctly through the understanding, and insight is characterized as cognition of something a priori through reason.

¹⁴³ *Der problematische Satz ist also derjenige, der nur logische Möglichkeit (die nicht objektiv ist) ausdrückt, d.i. Eine freie Wahl einen solchen Satz gelten zu lassen, eine bloß willkürliche Aufnahme desselben in den Verstand. Der assertorische sagt von logischer Wirklichkeit oder Wahrheit, wie etwa in einem hypothetischen Vernunftschluß das Antezedens im Obersatze problematisch, im Untersatze assertorisch vorkommt und zeigt an, daß der Satz mit dem Verstande nach dessen Gesetzen schon verbunden sei, der apodiktische Satz denkt sich den assertorischen durch diese Gesetze des Verstandes selbst bestimmt”* (A75f/B101).

In every syllogism, I think first a rule (the *major*) through the understanding. Second, I *subsume* a cognition under the condition of the rule (the *minor*) by means of the *power of judgment*. Finally, I determine my cognition through the predicate of the rule (the conclusion), hence *a priori* through *reason* (A304/B360).¹⁴⁴

According to this Dialectic passage, thinking a syllogism in general essentially consists of (a) first thinking a major premise that constitutes a rule through the understanding in the narrow sense (as the capacity to grasp concepts), (b) then thinking a minor premise that constitutes a cognition falling under the rule in the major premise through the power of judgment, and (c) thinking a conclusion *a priori* through reason, that is, as a judgment whose truth grounded in the major and minor premises from which it is inferred.

Putting together these two passages, we seem to get the following picture of the thinking of syllogisms or inferences of reason and the way they employ modal logical forms: thinking the major premises of hypothetical and disjunctive syllogisms essentially requires determining the constituent judgments according to the problematic logical form, which makes this logical form an essential component of the first moment of two out of three species of syllogisms. Thinking major and minor premises in general essentially consists of determining the judgments used as premises according to the assertoric logical form, making this logical form an essential aspect of the first and the second moment of any syllogism.¹⁴⁵ Finally, thinking the conclusion of a syllogism in general essentially requires determining the concluding judgment according to the apodictic logical form, making this logical form an essential aspect of the third moment of any syllogism.

¹⁴⁴ “In jedem Vernunftsschlusse denke ich zuerst eine **Regel** (major) durch den **Verstand**. Zweitens subsumiere ich ein Erkenntnis unter die Bedingung der Regel (minor) vermittelst der Urteilskraft. Endlich bestimme ich mein Erkenntnis durch das Prädikat der Regel (conclusio), mithin *a priori* durch die Vernunft” (A304f/B360).

¹⁴⁵ The assertoric form is essentially employed in thinking the major premise of all syllogisms (not just categorical ones), for even in hypothetical and disjunctive judgments serving major premises the whole complex judgment is thought assertorically.

In an important footnote to his discussion of the modal functions and forms in the *Leitfaden*, Kant does assign the three modal functions to the three different intellectual sub-capacities that he assigns to the three components of syllogism: “it is as if thinking in the first [problematic] case were a function of understanding, in the second [assertoric case] a function of the power of judgment, and in the third [apodictic case], [a function] of reason” (A75n/B100n).¹⁴⁶ However, Kant uses the language of analogy to make this assignment, claiming not that these functions actually are functions of the different intellectual capacities, but that it is “just as if” this were so. So, it does not seem that Kant means to identify these modal functions with the employment of the different intellectual sub-capacities. Indeed, according to the passage from the second introductory section to the *Dialectic*, major premises are always thought by the understanding. But *qua* judgments that constitute major premises, they are to be thought assertorically (even if their components are thought problematically). Major premises are, as such, thought assertorically and are examples of non-problematic uses of the understanding.

Given that we cannot identify exercises of the modal functions with exercises of our intellectual sub-capacities, I suggest that Kant's analogy between these modal functions and the intellectual sub-capacities is rather meant to illustrate how there is a progression in the way the intellect treats the content of judgments ordered by the three modal functions that is structurally analogous the progression inherent in a syllogism: from thinking something as merely logically possible in a major premise to thinking of it as necessarily (even if conditionally) true in a conclusion. It is this progression in thinking that I take it leads Kant at the end of his discussion

¹⁴⁶ *Gleich, als wenn das Denken im ersten Fall eine Funktion des Verstandes, im zweiten der Urteilkraft, im dritten der Vernunft wäre*” (A75n/B100n).

of the modal functions in the second chapter of the *Leitfaden* to speak of the "gradual assimilation" by the intellect that occurs in such a progression of modal functions, a progression whose three functions can be called moments of thinking in general: "Now since everything here incorporates itself so that one first judges something problematically, then assumes it assertorically as true, and finally asserts it as inseparably connected with the understanding, i.e., as necessary and apodictic, one can call these three functions of modality so many moments of thinking in general" (A76/B101).¹⁴⁷ In this passage, we see Kant once again give an at arms' length treatment of what these functions consist of, especially in the claims that one first judges something problematically, then merely "assumes" something assertorically as true, in order to then "claim" it as apodictic and necessary.¹⁴⁸ This suggests that in thinking a judgment assertorically, one need not have access to the ground of the truth of the judgment, but merely assume that there is the ground of such a truth.

With this general background to the modal logical forms and functions on the table, I turn to focus on the individual logical forms rather than functions. As Wolff notes, a judgment of the understanding is modally determined insofar as it expresses a determined degree of "assimilation" [*Einverleibung*] of the content of a judgment through the understanding in general (1995, 147-52). The different logical forms then correspond to the 'values' that are accorded to the affirmation or denial of the propositional content of a judgment (Ibid., 173). As Wolff notes, two opposing kinds of modally determined judgments (and so two modal logical forms) can be

¹⁴⁷ *Weil nun hier alles sich gradweise einverleibt, so daß man zuvor etwas problematisch urteilt, darauf auch wohl es assertorisch als wahr annimmt, endlich als unzertrennlich mit dem Verstande verbunden, d.i. als notwendig und apodiktisch behauptet, so kann man diese drei Funktionen der Modalität auch so viel Momente des Denkens überhaupt nennen" (A76/B101).*

¹⁴⁸ The fact that one can "assume" something assertorically as true points to the fact that one can think a judgment using the assertoric function and so think it as actually true though one does not grasp the ground of the truth.

distinguished analytically, each of which can be described as a judgment that employs one of the two concepts of reflection of modality (<matter>—the determinable [*das Bestimmbare überhaupt*]— and <form>—the determination of the determinable [*dessen Bestimmung*]—) (1995, 173).¹⁴⁹ Either the content of a judgment is thought by the intellect as merely thinkable, as a thought that is non-contradictory and so as determinable with respect to a truth-value (and so as merely determinable, i.e., as matter for thinking), or it is thought as actually having a determined truth-value (and so as a determination of thinking). In the first case, the modal determination of a judgment consists in the act of thinking the content of a judgment as a merely thinkable content. This is precisely the act of determining a judgment according to the first (problematic) logical form. In the second case, the modal determination of a judgment consists in the act of thinking the content of a judgment as actually true or false, i.e., as determined with respect to this truth-value. This is precisely the act of determining a judgment according to the second (assertoric) modal form.

An example of a problematic judgment is, as we have seen, any component atomic judgment in a hypothetical or disjunctive judgment, e.g., ‘persisting evil is punished’ in the hypothetical whose major premise is ‘If there exists a perfect justice, then persisting evil will be punished’ (A75/B100). In this judgment, the content of ‘there exists a perfect justice’ is not determined as true or false, but rather is thought as merely thinkable and truth-apt. In thinking this content according to the problematic logical form, we do not actually subsume the concept

¹⁴⁹ I do not, however, follow Wolff’s account in all its details, especially as it relates to the third logical form, which he does not relate to the concepts of reflection but that are not the result of actions of judgment but the matter of actions of reason” (1995, 173).

of <perfect justice> and individuals falling under it under the concept <existence>.¹⁵⁰ An example of an assertoric judgment is, as we have seen, any judgment thought as the minor premise of a hypothetical syllogism. Thus, 'there exists a perfect justice' thought as a minor premise is an example of an assertoric judgment that is thought as actually true.

We can see that these two logical forms connect manifolds of representations in opposing ways. In the problematic logical form, the content of the judgment is asserted in a way that does not determine its truth-value, while in the assertoric form, the content of the judgment is asserted in a way that does determine its truth-value. Moreover, the problematic logical form contains the condition of the assertoric logical form insofar as one can think of a content as determinately true or false only if that content is thinkable and so determinable with respect to a truth-value. Thus, a problematic judgment is the matter in which the assertoric judgment, as form, is realized by determining and thus thinking of the thinkable judgment as true or false.¹⁵¹ Thus, the first two members of the division of modal logical forms seem to meet the requirements Kant sets for members of a synthetic a priori division from concepts. If the third member of this division is to meet these requirements, then it must consist of a combination of the opposing ways of ordering manifolds of representations that constitute the first two members, i.e., a combination of the relevant condition with its conditioned.

The apodictic logical form meets these requirements, for it consists in the act of determining the truth value of the content of a judgment (form) in a way that also thinks it as

¹⁵⁰ I suppress complications concerning existence being a category for the purposes of working with Kant's own example.

¹⁵¹ Though it is not generally the case for Kant that matter precedes and so serves as the condition for form. For Kant notes in the Amphiboly's discussion of these two concepts that "the form of intuition (as a subjective constitution of sensibility) precedes all matter (the sensations), thus space and time precede all appearances and all *data* of appearances and instead first make the latter possible" (A267/B323).

determined by another form and therefore as determinable (matter). I follow Rosenkoetter in interpreting apodictic judgments as ones in which the subject constitutively takes herself to be normatively beholden to inferential laws connecting the content of the judgment to other representations serving as its ground (2013, 393). Determining a judgment according to the apodictic logical form thus partially consists of thinking of it as grounded in other representations. This consists then not just in determining the content of a judgment as determinately true, but also determining this determination of the truth-value as itself necessitated by the representations serving as its ground. More precisely, in the apodictic logical form, the determination (form) of the truth-value that is constitutive of the assertoric form becomes determinable (matter) by itself being determined as necessary by reason, for as Kant notes, “[the apodictic proposition thinks for itself the assertoric as determined through these laws of the understanding itself [*der apodiktische Satz denkt sich den assertorischen durch diese Gesetze des Verstandes selbst bestimmt*]” (A76/B101). In other words, the apodictic logical form combines (1) the property of the problematic form of determining their content as determinable (because determined) with (2) the property of the assertoric form of determining their content with respect to their truth-value.¹⁵² An apodictic judgment can thereby be seen as employing both the concepts of <matter> and <form>. It treats the content of a judgment as both a determination of a truth-value as well as itself determinable as necessary because grounded in other representations. An example of such an apodictic judgment is any judgment thought as the conclusion of any syllogism. Thus, ‘persisting evil will be punished’ thought as the conclusion of a syllogism whose major premise is ‘If there exists a perfect justice, then persisting evil will

¹⁵² Here my account of how these three modal forms of judgment relate differs from Wolff.

be punished' and whose minor premise is 'there exists a perfect justice' is an example of an apodictic judgment. In asserting this conclusion, one thereby takes oneself to be normatively beholden to inferential laws that connect the judgment 'persisting evil will be punished' to the judgments 'there exists a perfect justice' and 'if there exists a perfect justice, then persisting evil will be punished,' which serve as the ground of the former's truth.

Note that the problematic logical form alone has the property of determining the content of a judgment as merely truth-apt. So, the apodictic logical form is not plausibly seen as including the problematic logical form but merely shares a property with it. Likewise, only the assertoric logical form has the property of only determining the truth-value of a content of a judgment, so the apodictic logical form does not plausibly include the assertoric logical form. It merely shares a property with it. Once again, *pace* Wolff, nothing in this third element requires an appeal to a special act of the understanding to combine the first two.

We have seen that the three different modal logical forms in the table meet the requirements of trichotomous synthetic *a priori* divisions from concepts. Each modal logical form thereby occupies a well-motivated and systematic place as an elementary act of the capacity to judge. In meeting these requirements, this trichotomy constitutes an exhaustive such division of the concept of <modality of judgments>. Thus, we can see that the elements under the heading of relation constitute a complete and systematic presentation of the fourth basic dimension of the logical form of judgments, namely, the modality of judgments. And these logical forms, with their different degree of assimilation into the understanding, constitute traditionally conceived acts of methodological systematization in a syllogistically (i.e., structured according to *Vernunftsschlüsse*) conceived method of system of knowledge (Cf. Brandt, 1995, 71, 85).

2.5 Conclusion

If what I have argued is correct, then the table of the moments of thinking, *qua* table of logical forms of judgment, systematically presents all the elementary determinations of all the basic dimensions of the logical forms of judgment. It thereby presents all different elementary acts of the understanding as a capacity to judge and thus exhibits the essence of this capacity. I should note, however, that there are limitations to what this argument accomplishes. The argument gives each of the twelve logical forms a well-motivated and systematic place by regarding it as an elementary act of the capacity to judge, a capacity that is rich enough to encompass all logical, discursive acts of the intellect. It is tempting to conclude from this, given that each logical form is systematically generated and that they arise organically, that there is no room for further logical forms. However, it does not seem that this licenses the conclusion that other elementary (irreducible) logical forms are impossible. As Thöle has pointed out, for this stronger result, it seems that we would need to be entitled to the assumption that a further subdivision of these twelve classes of logical forms/functions is impossible, such that these twelve forms/functions are genuine elements and there can be no more than these twelve logical forms (2001, 488). But it is unclear that Kant is entitled to such an assumption. Despite the limitations of Kant's argumentative strategy for the claim completeness of this table, I hope to have shown that each logical form represents an irreducible act of the intellect as conceived by Kant's contemporaries and of the capacity to judge and that there is some form of argumentative support for the claim that the twelve logical forms of the understanding systematically capture the essence of our capacity to judge.

With this, the explication of the logical concept of the understanding as a capacity to judge (and so the first step of the *Leitfaden* argument) is complete. In the next chapter, I turn to give an interpretation of the second step of the *Leitfaden* argument, of how this logical concept leads to the higher concept of the understanding as a capacity to combine representations.

CHAPTER 3 – THE LOGICAL FUNCTIONS OF THE UNDERSTANDING AND THE HIGHER CONCEPT OF THE UNDERSTANDING

In this chapter, I argue for my interpretation of the second step of the main argument of the *Leitfaden* chapter. This step is one from the logical concept of the understanding (comprising the logical *forms* of judgment) to the higher concept of the understanding (comprising the logical *functions* of judgment). In the previous chapter, I focused on the logical forms of judgment. In this chapter, I argue for my interpretation of the logical functions of the understanding and their relation to the logical forms. I do so in part by arguing that my interpretation answers the “vexed question” Ian Proops raises concerning the metaphysical deduction: viz., “how the Metaphysical Deduction can hope to combine the goal of identifying the categories with that of establishing their origins as a priori” (2003, 223n39).

Proops rightly notes that to emphasize the justificatory role of the Metaphysical Deduction “is not to deny that establishing the a prioricity of the Categories is not the only task Kant assigns to the Metaphysical Deduction” (2003, 223n39). For the table of judgments, as the “clue to the *discovery* of the Pure Concepts of this Understanding, is supposed to facilitate the principled *identification* of these concepts” (Ibid). Proops argues that Kant cannot appeal to an isomorphism between the table of categories and the table of judgments as evidence for his view that what it is to be a category is just to be a function of judgment in its application to a manifold of sensibility. For “such an argument would be possible only if Kant had a means of identifying the Categories independently of the Metaphysical Deduction” (Ibid).

I think the worry Proops raises is an understandable one but will argue that my interpretation of the logical functions and forms allows Kant to answer this “vexed question” in a way other interpretations cannot. My strategy is to go through the texts in the *Leitfaden* chapter in which

Kant discusses the relationship between the logical functions and judgments. I argue that these texts need not be read as identifying the logical forms and functions. Rather, they should be read as supporting an interpretation of functions as intimately related but ultimately distinct from judgments and their logical forms. In this reading, the logical functions are metaphysically prior unities of acts, which ground the possibility of judgment and its logical forms. By contrast, the logical forms are epistemically prior acts that order discursive representations. In determining a judgment according to a logical form, we thereby exercise a logical function, so the forms of judgment *realize* the logical functions of judgment. However, the logical functions themselves are not identical to judgments or their logical forms.

I shall argue that my *realization reading* of the relationship between these functions and forms (which holds that the logical forms realize logical functions) can easily answer Proops's "vexed question" while an *identity reading* (which identifies these logical forms and functions) cannot. For the identity reading does not have the resources to explain how the table of judgments allows the transcendental philosopher both to identify principledly the categories and to trace out their a priori origin. By contrast, the realization reading can hold that the isomorphism between the logical forms and the categories provides a principled means of identifying the categories, while the isomorphism between the logical functions and the categories provides Kant with evidence for his view that what is it to be a category *just is* to be a function of the understanding in its application to sensibility. After arguing for this interpretation of the logical functions and their relation to logical forms, I offer a critical discussion of the individual headings and elements of the table of the moments of thinking, *qua* table of logical functions, that is, *qua* unities of representation-ordering acts. In doing so, I articulate the kind of

argumentative support that Kant means to provide for the claim that the logical functions of the understanding in the table are complete.

3.1 The Logical Functions in the *Leitfaden* Chapter

As we saw in chapter two, Kant introduces the notion of function as that on which concepts rest in the first section of the *Leitfaden* chapter. There he characterizes this notion as “the unity of the action of ordering different representations under a communal one [*die Einheit der Handlung, verschiedene Vorstellungen unter einer gemeinschaftlichen zu ordnen*]” (A68/B93). I interpret the genitive construction “unity of the act” or “*Einheit der Handlung*” i.e., unity of the act as both a subjective and objective genitive. That is, the (representation-ordering) “act” is both the subject (or agent) of the unity and the object (or recipient) of the unity: the act brings about a unity as its effect (the relevant representation-ordering) and in doing so is unified by its unity (its function). As already noted in the previous chapter, much may be said about Kant’s rich notion of function. For my purposes, however, it suffices to note that, whatever else a function may be, Kant seems to think it is first and foremost not a representation-ordering act itself, but rather the *unity*¹⁵³ of such a representation-ordering act. As we have seen, this fact allows the very same unities (and so the same functions) to unite different representation-ordering acts, acts that order different representations under communal ones. This is precisely what is essential for the

¹⁵³ In the background here is the key idea, due to Houston Smit. (ms), that Kant inherits an Aristotelian metaphysical framework that centrally includes the notion of activity or *energeia* and that, like Leibniz, he seeks to repurpose and vindicate this framework, including the notion of activity, challenged by Descartes and Locke, for use not in natural philosophy (or in Leibniz’s vision of first philosophy), rather in a revolutionary new critical conception of metaphysics as first philosophy (Cf. Kant’s claim in the Phenomena and Noumena chapter that “the proud name of an ontology, which arrogates to itself to give synthetic *a priori* cognition of things in general [*Dingen überhaupt*] in a systematic doctrine (e.g., the *Grundsatz* of causality), must give way to the humble [*dem bescheidenen*] one of a mere analytic of the pure understanding” (A247/B303).

metaphysical deduction proper (A79/B104), permitting “the same functions” to provide unity both to acts of judgments that order manifolds of concepts and to acts of pure synthesis that order manifolds of intuitions.

Ultimately, I think that functions, as unities of representation ordering acts, are to be understood as a species of Aristotelian *energeia* by means of which the thinking subject constitutes itself as the subject of thought and cognition. On this reading (which follows Smit, Watkins, Reich, and Wolff’s work¹⁵⁴ in certain respects), functions are first and foremost temporally undetermined¹⁵⁵ unifying activities of our higher capacity of cognition that order

¹⁵⁴ Eric Watkins has to my mind persuasively argued that Kant’s model of causality involves substances that continuously exercise their powers through an unchanging, continuous unifying activity according to inner principles. This model involves two different levels of causes that are temporally indeterminate (that of the substance itself and that of its activity) and that result in a temporally determinate effect (2005, Ch. 4, esp. 247, 256, 289). As Watkins notes, Kant’s account of self-consciousness in the activities of the understanding is a concrete instance of Kant’s model of causality “whereby a connection between representations is brought about as its effect” (Ibid., 278). Michael Wolff notes that unities of actions, such as the logical functions, are not processes localizable in time (1996, 22). Smit interprets pure apperception as an unchanging *energeia* that underlies the process of being conscious of one’s numerically identical self at different moments in time as it realizes different sorts of representation to determine different sorts of thinking (2019a, 998). Relatedly, although not quite in the sense of *energeia*, Reich interprets function generally as “the ‘law’ of the action or operation” “abstracted from the conditions under which alone it [the action]” may be performed” (1986, 27). This last gloss highlights that the unity prescribes a unifying principle for the action to take place.

¹⁵⁵ Upon first encountering the idea of temporally undetermined activity, one might (and many do) understandably throw their hands up in exasperation. The idea of a timeless activity seems incoherent to some because it seems that action and activity must essentially take place in time. In response, we can note that Kant’s views on (a) time and temporal determination and (b) activity are nuanced enough to overcome this worry. First, concerning time and temporal determination, we can remind ourselves that for Kant, time is not a feature of mind-independent reality but a feature of our sensibility as subjects of representations. According to Kant, by thinking of something as not determined in time, we do not mean that it does not take place at all in the order of being but that it cannot be assigned a temporal region in the combined, determined flow of all the different kinds of sensations and mental states of which we can be conscious. As Smit has pointed out to me (in conversation), we can get even clearer about how Kant thinks of the temporally undetermined if we articulate a distinction between being in space and time and being *determined in* space and time (i.e., in a region of space and time to the exclusion of others). In the intellectual tradition that Kant inherits, finite, spatiotemporally located beings have an existence determined in space and time while God does not. However, that does not mean that God exists completely unrelated to what exists in space and time. Rather, God has an existence in space and in time that is not determined in space time. Indeed, God does not exist in any spatiotemporal region to the exclusion of others but rather exists in all spaces and at all times. For according to this tradition, God’s unified, unchanging activity creates and sustains creation, including space and time, and is, as such, an activity that cannot be determined in time (Cf. Smit 2019a, 998). This view of lack of temporal determination can help us clarify (b) the relevant conception of activity. This kind of activity or *energeia* is, as such, uniform and unchanging, complete all at once. Examples of this kind of activity include intellectual

representations and ultimately make temporally determined thinking and experience possible as their effect. The very same functions are performed as this kind of temporally undetermined activity in a way that serves to unify different token representation-ordering acts that yield temporally determined effects. On this reading, the different exercises of logical function are not temporally prior or posterior to one another (and indeed cannot be temporally ordered) at all. They nonetheless exhibit a (metaphysical) explanatory ordering in terms of how they serve as conditions for the possibility of thought and experience.¹⁵⁶ This is because certain acts presuppose others and require them for their own possibility, while these others do not presuppose the first.¹⁵⁷ I think that this is an attractive and rich reading of the logical functions, one which essentially involves thinking of them as moments of reflection. This reading follows Smit's interpretation of the central role of reflection in Kant's critical philosophy. As he has argued, reflection is an activity that is constitutive of the natural operations of the understanding (1999, 210). Thinking or reflection for Kant is essentially "a self-representing act (for it consists

contemplation and living well. In contrast to this, a process or *kinesis* occurs in time by taking place in stages. Examples of actions that constitute processes include going through a syllogistic train of thought, going through a healthy routine. As I hope these examples help make clear, an *energeia*'s being uniform, unchanging, and temporally undetermined allows it to explain the unity of the different, temporally extended stages in a process action. The timeless activity (of intellectual contemplation and of living well) provides unity to the different acts of the different stages of the process action (of going through a syllogistic train of thought or of going through one's routine). That is, the exercise of this prior, undetermined activity explains why one performs the particular actions one does at different stages, as the activity strives to realize its characteristic end in different ways at different times (in different conditions). If this appeal to timeless activity seems too metaphysically extravagant, it is important to keep in mind how Kant employs it and in the service of what. For on my view, Kant's critical philosophy holds generally that if certain important things we take for granted in our daily lives such as experience of an objective reality (of persisting objects interacting) and genuinely objective (i.e., categorical) morality are to be possible, then things in themselves (including us as transcendental subjects and the transcendental *Gegenstand*) must engage in timeless *energeia* that make all of this possible. According to Kant, if there are no such *energeia*, then we get a Humean result where a lot of what we take for granted in our daily lives is, in fact, an illusion. For on such a Humean result, reality is a mere succession of appearances where there are only conjoined but never connected events and morality does not hold categorically and is instead based on mere convention and desires.

¹⁵⁶ The logical functions make thinking possible insofar as they ground the logical forms. They make experience possible insofar as they ground the categories.

¹⁵⁷ To be sure, these prior acts are undertaken for the sake of also performing all posterior ones, insofar as we undertake the prior acts for the sake of making thought and ultimately experience possible, which requires the posterior acts.

in representing a relation to one subject of consciousness which it thereby brings about, and so is a representing of itself” (1999, 211).¹⁵⁸ Smit notes that there are two species of reflection: logical and transcendental. In logical reflection, we unite concepts through the logical functions of judgments by giving concepts the logical form of a judgment, thereby generating the intellectual form of our thinking in general (1999, 211). By contrast, transcendental reflection employs the logical functions of judgment to determine intuitions, thereby generating and constituting the intellectual form of our thinking and experience, i.e., cognition of *Gegenstände* (Ibid., 213, 217). On this reading then, the functions of the understanding are reflective, self-constituting acts of the mind *qua* subject of genuine thought and cognition.

Fully articulating and defending this reading of the logical functions of the understanding would require delving into the relationship between reflection and apperception and the role the logical functions of the understanding play in the transcendental deduction of the categories. This task lies outside the scope of this dissertation. Nonetheless, this interpretation of the logical functions is part of the motivation for taking seriously the central idea I will be relying on: that it is *qua unities* of acts (rather than acts themselves) that the same functions, as unities of representation-ordering acts, can unify different representation-ordering acts and so can be the common ground of acts that order different kinds of representations.

¹⁵⁸ Smit points out that, according to Kant, the understanding can only relate representations to each other in our consciousness according to the four pairs of “concepts of reflection” (A261/B375): <identity> and <diversity>, <agreement> and <opposition>, <inner> and <outer>, and the determinable and its determination (<matter> and <form>) (1999, 211). As I note below, I take this point seriously by interpreting the logical functions as essentially ordering representations by treating them according to these concepts of reflection.

3.1.1. The Structure of the First Section of the *Leitfaden*

With this general interpretation of the logical functions in hand, I now turn to texts in the *Leitfaden* chapter in which Kant discusses functions in order to see how well it makes sense of them. As I understand the structure of the first section of the *Leitfaden* chapter (A67-9/B92-4), we can divide it into six stages:¹⁵⁹

First Stage (Positive Account of the Understanding) (sentences [1]-[5]):¹⁶⁰ This first stage begins with the negative characterization of the understanding as a non-sensible capacity for cognition and argues that the understanding is a capacity for cognition through concepts. Kant argues that cognition is either cognition through intuitions or cognition through concepts and that the understanding as a *nonsensible* capacity for cognition cannot partake in (sensible) intuitions. Since it is not a capacity of cognition through intuitions, and the only other kind of cognition is through concepts, it must be a capacity for cognition through concepts.

Second Stage (Functions, Concepts, and Spontaneity) ([6]-[8]):¹⁶¹ The second stage then proceeds to relate the notions of concept, function, and spontaneity, contrasting them with that of intuition, affection, and receptivity. Kant notes that functions are the ground of concepts, which grounds them in the spontaneity of thinking, while affections are the grounds of intuitions, which grounds them in the receptivity of impressions.

¹⁵⁹ This discussion of the first section of the *Leitfaden* is inspired by Wolff's own (1995, 46-47). However, he divides the sections along somewhat different lines: ([1]-[3], [4]-[5], [6-8], [9-11], [12-15], [16-23], [24]) and seeks to interpret Kant as arguing there are four primary functions in this section.

¹⁶⁰ [1] *Der Verstand wurde oben bloß negative erklärt: durch ein nichtsinnliches Erkenntnißvermögen.* [2] *Nun können wir unabhängig von der Sinnlichkeit keiner Anschauung theilhaftig werden.* [3] *Also ist der Verstand kein Vermögen der Anschauung.* [4] *Es gibt aber, außer der Anschauung, keine andere Art zu erkennen, als durch Begriffe.* [5] *Also ist der Verstand eines jeden, wenigstens des menschlichen Verstandes eine Erkenntniß durch Begriffe, nicht intuitiv, sondern diskursiv* (A68/B92f).

¹⁶¹ [6] *Alle Anschauungen als sinnlich beruhen auf Affectionen, die Begriffe also auf Functionen.* [7] *Ich verstehe aber unter Funktion die Einheit der Handlung, verschiedene Vorstellungen unter einer gemeinschaftlichen zu ordnen.* [8] *Begriffe gründen sich also auf der Spontaneität des Denkens, wie sinnliche Anschauungen auf der Receptivität der Eindrücke.*

*Third Stage (Understanding cognizes through concepts in judgment) ([9]-[13]):*¹⁶² The third stage proceeds to discuss the acts by means of which the understanding as a capacity for cognition through concepts can cognize *Gegenstände*. Kant notes that the understanding can only make use of concepts in judgment. Since concepts are essentially mediate representations of *Gegenstände*, judgments that constitute cognitions must order some other, ultimately immediate representations of *Gegenstände* under concepts. Judgments are therefore essentially mediate cognitions of *Gegenstände* and representations of representations of them. He then gives an example of how the judgment “All bodies are divisible” (A68/B93) is one such mediate cognition and representation of a representation of bodies.

*Fourth Stage (Judgments as functions of unity) ([15]):*¹⁶³ This stage infers from the claim that judgments are essentially mediate cognitions of *Gegenstände* to the claim that judgments are functions of unity among our representations, for judgment essentially consists of cognizing *Gegenstände* by means of a mediate representation (concept) that contains many representations including immediate ones under it.

¹⁶² [9] *Von diesen Begriffen kann nun der Verstand keinen andern Gebrauch machen, als daß er dadurch urtheilt. [10] da keine Vorstellung unmittelbar auf den Gegenstand geht, als bloß die Anschauung, so wird ein Begriff niemals auf einen Gegenstand unmittelbar, sondern auf irgend eine andre Vorstellung von demselben (sie sei Anschauung oder selbst schon Begriff) bezogen. [11] Das Urtheil ist also die mittelbare Erkenntniß eines Gegenstandes, mithin die Vorstellung einer Vorstellung desselben [Gegenstandes]. [12] In jedem Urtheil ist ein Begriff, der für viele gilt und unter diesem Vielen auch eine gegebene Vorstellung begreift, welche letztere denn auf den Gegenstand unmittelbar bezogen wird. [13] So bezieht sich z.B. in dem Urtheile: alle Körper sind theilbar, der Begriff des theilbaren auf verschieden andere Begriffe; unter diesen aber wird er hier besonders auf den Begriff des Körpers bezogen; dieser aber auf gewisse uns vorkommende Erscheinungen. [14] Also werden diese Gegenstände durch den Begriff der Teilbarkeit mittelbar vorgestellt.*

¹⁶³ [15] *Alle Urtheile sind demnach Functionen der Einheit unter unsern Vorstellungen, da nämlich statt einer unmittelbaren Vorstellung eine höhere, die diese und mehrere unter sich begreift, zur Erkenntniß des Gegenstandes gebraucht, und viel mögliche Erkenntnisse dadurch in einer zusammengezogen werden.*

*Fifth Stage (Understanding as a Capacity to Judge) ([16]-[22]):*¹⁶⁴ Kant begins this stage by bringing in something new, as indicated by his use of “*aber*” in his claiming, “All action of the understanding can “however [*aber*]” be traced back to judgments, so that the understanding in general can be represented as a capacity to judge [*Vermögen zu urteilen*]” (A69/B94). Kant then seems to give an argument in [17-19] for the claim that the understanding is a capacity to judge, starting from the claim that the understanding is a capacity for thinking. We can reconstruct the argument as follows:

(1) [17] The understanding is a capacity for thinking

(2) [18] Thinking is cognition through concepts

So (from 1 and 2), (3) The understanding is a capacity for cognition through concepts

(4) [19] Concepts can be used to cognize *Gegenstände* only as predicates of possible judgments

So (from 3 and 4), (5) The understanding is a capacity for cognition through concepts as predicates of possible judgments

Thus, (from 5) (6) the understanding is a capacity to judge

Kant offers some support for (4) by giving in [20-22] the example of how the concept of <body> can be used to cognize a *Gegenstand*. He notes that <body> a concept, that is, the mediate representation of a *Gegenstand* is a concept only because it contains under itself

¹⁶⁴ [16] *Wir können aber alle Handlungen des Verstandes auf Urtheile zurückführen, so daß der Verstand überhaupt als ein Vermögen zu urtheilen vorgestellt werden kann.* [17] *Denn er ist nach dem obigen ein Vermögen zu denken.*

[18] *Denken ist das Erkenntniß durch Begriffe.* [19] *Begriffe aber beziehen sich als Prädicate möglicher Urtheile auf irgend eine Vorstellung von einem noch unbestimmten Gegenstande.* [20] *So bedeutet der Begriff des Körpers etwas, z.B. Metall, was durch jenen Begriff erkannt werden kann.* [21] *Er ist also nur dadurch Begriff daß unter ihm andere Vorstellungen enthalten sind, vermittelt deren er sich auf Gegenstände beziehen kann.* [22] *Er ist also das Prädikat zu einem möglichen Urtheile, z.B. ein jedes Metall ist ein Körper.*

representations by means of which “it can relate to *Gegenstände*” [*sich auf Gegenstände beziehen kann*] in a judgment, e.g., “Every metal is a body.”

Sixth Stage (Functions of Understanding and Function in Judgment) ([23]-[24]):¹⁶⁵ This is the final stage in which Kant concludes the section by stating his strategy for systematically discovering the functions of the understanding. Here he claims that by completely presenting the functions of unity in judgments (which I take to be the logical functions, realized as the logical forms of judgment), we can discover all the functions of the understanding. Kant ends this stage and the whole first section by noting that “[t]he following section will lay before our eyes that this is entirely readily accomplishable [*sich ganz wohl bewerkstelligen lasse*]” (A69/B94), i.e., by signaling that the next section (the second section of the *Leitfaden* chapter that begins with the presentation of the table of the moments of thinking) will make evident how Kant’s strategy is to work.

3.1.2 Functions in the First Section the *Leitfaden*

With this view of the structure of the first section of the *Leitfaden* in hand, we can discuss the key claims Kant makes about functions in this section to see that they fit my interpretation of the logical functions of the understanding:

(Functions as Parallel to Affections): functions are that on which concepts rest, as sensible intuitions rest on affections (A68/B93).

¹⁶⁵ [23] *Die Funktionen des Verstandes können also insgesamt gefunden werden, wenn man die Funktionen der Einheit in den Urtheilen vollständig darstellen kann.* [24] *Daß dies aber sich ganz wohl bewerkstelligen lasse, wird der folgende Abschnitt vor Augen stellen.*

In making this claim in the second stage, Kant seems to claim that functions are the activities that ground the possibility of discursive, general representations, i.e., concepts, just as affections are the activities that ground the possibility of intuitive, singular representations, i.e., intuitions.¹⁶⁶

Kant infers from this together with the characterization of function as the unity of representation-ordering acts, “Concepts are therefore grounded on [*gründen sich auf*] the spontaneity of thinking, as sensible intuitions are grounded on the receptivity of impressions” (A68/B93). That is, functions are inherently spontaneous (grounded in the activity of the subject of representations itself) whereas affections are inherently receptive (grounded in the activity of something besides the subject of representations). This fits nicely with the idea that functions are unifying activities that ground the possibility of concept-ordering (and in general representation-ordering) acts. This first key claim about functions thus fits nicely with my interpretation of logical functions.

(Functions as Unities of Representation-Ordering Acts): function is “the unity of the act of ordering several representations under a communal one” (A68/B93).

As I have noted, my interpretation holds that in making this claim, Kant means to be highlighting that functions are essentially not themselves representation-ordering acts such as judgments but rather that which grounds the possibility of all such acts performed by the intellect. On my interpretation then, it is key that these functions are not themselves judgments but rather conditions of the possibility of judgments.

¹⁶⁶ As I noted in chapter two, I follow Smit in interpreting the singularity of intuitions as essentially related to their immediacy. For their immediacy consists in their relating to their *Gegenstände* through intuitive marks, i.e., through singular instances of properties of those *Gegenstände*, as they are represented in (and so make up the contents of) our intuitions (2000, 260-6). The mediacy and generality of concepts are likewise, essentially related. For the mediacy of concepts consists in their relating to *Gegenstände* through discursive marks, i.e., through general properties of *Gegenstände* as they are represented in (and so make up the contents of) our concepts.

(Judgments as Functions of Unity): “All judgments are...functions of unity among our representations” (A69/B94).

By making this claim in the fourth stage of the section, Kant ties judgments and functions closely together. He seems to make a perfectly general claim about all acts of judgment, namely, that they are functions, but there are different ways of understanding this claim. On an *identity* or *judgmentalist* reading of this claim, Kant here is identifying judgments with the very same functions that ground concepts. That is, he is not only claiming that all acts of judgment are functions, but that all exercises of functions of the understanding constitute acts of judgment. Such a reading of this claim seems to imply a reductive reading of the metaphysical deduction (according to the taxonomy from chapter one). According to the reductive reading, the “same function” that provides unity to the synthesis of intuitions and judgment is itself an act of judgment.¹⁶⁷ As such, this reading is incompatible with my interpretation of the logical functions, which is meant to be consistent with a common ground reading. According to this reading, the relevant “same function” is the logical function as a unity of representation-ordering acts (that can be used to unite acts of both judgment and synthesis). However, this is not the only available reading of this claim. On my preferred *realization* reading of this claim, Kant here is merely claiming that all acts of judgment can be seen as instances of functions insofar as judgments order different representations under a communal one. That is, judgments are not identical with functions, but judgments do essentially realize functions in acts that order discursive representations. This reading leaves room for the functions to be different in kind from acts of

¹⁶⁷ Thöle gives a judgmentalist reading of this claim. For he interprets the first section of the *Leitfaden* as only discussing a single basic function [*Grundfunktion*], namely the function of the predicative use of concepts with which judgment is identified (2001, 486).

judgment, though all acts of judgment essentially contain exercises of logical functions. As such, the available realization reading of this claim fits nicely with my interpretation of the logical functions.

(Understanding as a Capacity to Judge): “We can, however [*aber*], trace back [*zurückführen*] all actions of the understanding to judgments, so that the understanding in general can be represented as a capacity to judge” (A69/B94).

There are, once again, different ways of interpreting this *tracing* claim (as we might call it) Kant makes in the fifth stage of the first section of the *Leitfaden* chapter. These are based on different interpretations of the tracing to judgments in question. On a reductive or judgmentalist interpretation of this claim, this “tracing back” constitutes a reduction of all actions of the understanding, including functions, to judgments as functions of unity. This reading implies a reductive reading of the metaphysical deduction that thinks of all functions as judgments. As such, it does not fit nicely with my interpretation of the logical functions, which is consistent with a common ground reading of the metaphysical deduction.

Schulthess (1981) and Brandt seem to hold a reductive reading of this claim (1995, 50). For Schulthess proposes (and Brandt cites approvingly) the following reconstruction of an argument in the first section of the *Leitfaden* for the conclusion that all functions of the understanding can be traced back to judgments and so that we can discover the understanding by presenting the functions of unity in judgments:

1. All judgments are functions of unity under our representations
2. All acts can be traced back to judgments
3. (Def.) All functions (of the understanding) are unities of acts

4. All unities of acts are acts of the understanding
5. All functions of unity are functions of the understanding
6. (from 1 and 5) All judgments are functions of the understanding
7. (from 2 and 4) All unities of acts can be traced back to judgments
8. All functions of the understanding can be traced back to judgments

From 8, it follows that “the functions of the understanding can all be found if one can present the complete functions of unity in judgments” (A69/B94), for by presenting the complete functions of unity in judgments, we present something to which we can trace all the functions of the understanding back. As Brandt notes, on this interpretation, the “functions of unity in judgments” are identical to what judgments “are” namely, “functions of unity among our representations.” This seems to imply a reductive interpretation of this claim.

The reconstruction offered is not without its merits, but it seems problematic to me. The first premise of this reconstruction seems taken as a basic premise, but in the text, this claim is preceded by an “*accordingly [demnach]*.” This suggests that this claim is inferred from what comes before, namely the claim that judgments are mediate cognitions of *Gegenstände*, which as mediate, must unite other representations of the *Gegenstand*, drawing them into one cognition. A similar worry holds for the second premise in the reconstruction: “All acts of the understanding can be traced back to judgments.” Kant starts the following sentence with “For [*Denn*],” which suggests that Kant gives an argument for this premise, rather than taking it as a basic premise. And indeed, what seems to follow is an argument for this assertion based on the premises (1) that the understanding is a capacity for thinking, (2) that thinking is cognition through concepts, and (3) that the understanding can make no other use of concepts than in judgment. That is, since the

understanding is a capacity to think, i.e., to cognize through concepts, and since the understanding can only make use of concepts in judgments, then any of its acts of cognition must be acts of cognition through concepts and so of judgment. One final issue I take with this reconstruction is with the fourth premise “All unities of acts are acts of the understanding.” For in my view, unities of acts are not simply one kind of act of the understanding among many. Instead, they are the fundamental spontaneous activities, which ground the possibility of all acts of the understanding. All in all, it does not seem to me that this reconstruction adequately captures Kant’s reasoning in this passage.

Bernhardt Thöle also holds a reductive reading of the tracing claim. He gives the following sketch of the argument of the first section of the *Leitfaden* (2001, 485-6):

First, a positive characterization of the (human) understanding is developed according to which the understanding is a capacity for cognition through concepts in [1-5]. The concept of function is then introduced and the thesis that all concepts rest on functions is stated in [6-8]. Then in order to show that all functions of the understanding can be traced back to functions of judgment, Kant must show both that (1): that judgment consists in the exercise of functions in the technical sense of the concept of function introduced in [7], and (2) that all functions of the understanding can be traced back to functions of judgments. Thöle interprets Kant’s argument for both of these claims as based on the claim that the understanding can make no other use of concepts than in judgments (A68/B93), which is introduced in [9] and argued for in [10-11]. Thöle thinks that in [12-15] Kant shows that judgment consists in the exercise of functions in the sense of [7], thereby arguing for (1). Then in [16-23], he interprets Kant as stating (2) and arguing for it by recourse to the result of [5] and [9], where what is mainly new here is the first

explicit mention of something merely implicit in [10], namely that a concept can only be used for the end of cognition in its function as *predicate* of a possible judgment.

Thöle notes that if his sketch is right, then in the first section of the *Leitfaden* only a single basic function [*Grundfunktion*] is discussed, namely that of the predicative use of concepts, with which judgment is identified (2001, 486). Thöle's interpretation, by reducing all functions of the understanding to functions of predicative judgment, gives pride of place to predicative judgments, taking them to be the functions of the understanding that are centrally discussed in the first section of the *Leitfaden*. Thöle's reading is well-motivated to the extent that this section does emphasize the role of judgment. My main issue with it is that it does not seem to take seriously the idea that functions are essentially unities of representation-ordering acts rather than representation-ordering acts. Because of this, Thöle's reading is incompatible with my interpretation of logical functions. On my view, Thöle over-emphasizes the role of predicative judgment. He seems to do this because he focuses on how judgment can yield cognition through concepts, but I take Kant's discussion of functions in this section to be focused on their use in mere thought rather than actual cognition. This does not constitute a convincing argument against Thöle's interpretation. Rather, I intend to argue abductively that my interpretation provides a better overall reading of this first section in part because it provides a better reading of the metaphysical deduction and the whole of the *Leitfaden*. For now, I turn to show that the text does not force upon us a reductive interpretation of the tracing claim.

On what we could call a teleological interpretation of this tracing claim, the tracing back to judgments consists in the fact that all actions of the understanding constitutively aim at judgments and serve as necessary preconditions for them. This interpretation fits nicely with a

teleological reading of the metaphysical deduction, according to which Kant holds that the logical forms of judgment guide the logical functions that give unity to both judgment and the pure synthesis of intuitions. I think a teleological interpretation of this claim is compatible with at least some version of the common ground reading of the metaphysical deduction. For, by itself, it is compatible with my interpretation of the logical functions. However, there is another interpretation of the tracing back to judgments available that fits my view of the metaphysical deduction even better.

On an epistemic interpretation of the tracing claim, the tracing back to judgments consists of the fact that all actions of the understanding can be discovered by looking at what actions are constitutive of the capacity to judge. The thought driving the epistemic interpretation of the tracing claim is that since the understanding is a capacity to judge, we can discover the fundamental actions of the understanding by looking at what actions are essentially required for it to carry out its essential acts of judgment. Judgments thereby serve as the ground of cognition for the fundamental activities of the understanding, i.e., the functions of the understanding proper. Accordingly, the epistemic reading of the tracing claim fits well with my interpretation of the logical functions, for according to it, the claim is that we can discover these functions by tracing them back to the essential acts of the capacity to judge. The epistemic reading of this tracing claim also nicely explains why, after giving his argument for why the understanding can be represented as a capacity to judge and discussing the example of how the concept of <body> can be used to cognize something by means of a judgment, Kant infers the next key claim about functions, which is precisely about how we can discover them:

(Functions of Understanding found in Functions of Unity in Judgment): “The functions of the understanding can therefore all be found together if one can completely present the functions of unity in judgment” A69/B94).¹⁶⁸

This claim (which we can call the *discovery* claim) is the main claim Kant makes in the sixth stage of this section of the *Leitfaden* chapter, and it relates the logical functions of the understanding (FU for short) and the functions of unity in judgments (FJ for short). It claims that we can discover FU by completely exhibiting FJ. There are different interpretations of how this discovery occurs. On what we can call an identity interpretation of this claim, FU, the logical functions of the understanding *just are* FJ, the logical function of unity in judgment. On this interpretation, we discover or find FU all together, the functions of the understanding by presenting FJ because FU *just are* FJ.¹⁶⁹ According to this reading, the discovery of FU on the basis of FJ is just a matter then of realizing the identity between FU and FJ, i.e., of realizing that the functions of unity in judgment and the function of the understanding are identical. This interpretation of the discovery claim implies a reductive reading of the metaphysical deduction, which identifies functions and judgments. As such it is incompatible with my interpretation. However, there are alternative readings of the discovery claim available that fit well with my interpretation of the logical functions. On what we might call the realization interpretation of the discovery claim, the FJ (functions of unity in judgment) are not strictly speaking identical to the FU (functions of the understanding). FJ are rather realizations of FU in acts of judgment. On a

¹⁶⁸ “Die Funktionen des Verstandes können also insgesamt gefunden werden, wenn man die Funktionen der Einheit in den Urteilen vollständig darstellen kann” (A69/B94).

¹⁶⁹ Thöle holds an identity interpretation of this claim interpretation, for he holds that the only basic function discussed in this section is that of the predicate use of concepts in judgment (2001, 486). In general, it seems that reductive readings of other claims about functions in this section seem to imply and be implied by an identity interpretation of the discovery claim.

realization interpretation then, we discover or find FU, the functions of the understanding by completely presenting FJ, the realization of these functions in acts of judgments as the logical forms of judgment. On a realization reading, the discovery of FU on the basis of FJ is a matter of realizing that the functions of the understanding (FU) are conditions for the possibility of the logical forms (FJ). As such, a realization reading of the discovery claim fits nicely with my interpretation of logical functions and with the corresponding common ground reading of the metaphysical deduction.

If what I have argued in this section is correct, then there is a plausible way of reading the key claims Kant makes about functions in the first section of the *Leitfaden* chapter that is compatible with my interpretation of the logical functions. I now turn to the key claims Kant makes about functions in the second section of the *Leitfaden* in order to argue that my interpretation can similarly make sense of them all.

3.1.3 Functions in the Second Section of the *Leitfaden*

The structure of the second section of the *Leitfaden* chapter is more straightforward than that of the first. Here Kant first introduces the table of the moments of thinking and proceeds to present it. After this presentation, Kant proceeds to give a discussion of the details of each of the headings, explaining why the third moments of quantity and quality are included as well as discussing each of the moments of relation and modality. In this section, Kant makes one general claim about logical functions in his introductory paragraph to the table, and then a few key claims about certain specific functions. I take them up in order.

(Function of Thinking found in the abstracted logical form of judgment): “If we abstract from all content of a judgment in general and attend only to the mere form of the understanding therein, then we find that the function of thinking in the same [in a judgment in general] can be brought under four titles, each of which contains three moments under itself” (A70/B95).¹⁷⁰

Kant opens the second section of the *Leitfaden* chapter with this claim. He notes that if we attend only to the form of the understanding in a judgment in general, i.e., to the logical forms of judgment, then we find that the function of thinking in judgment can be brought under four titles with three moments under each title. It is noteworthy that Kant speaks in the singular of “the function of thinking” as that which is brought under four titles. This function would seem to be the unity of the act of a highly general act of thinking or of reflection. This act, in turn, would seem to be the act of relating different representations in one consciousness. The different titles constitute different sub-functions, unities of different aspects of this act, an act that consists of different ways of combining manifolds of representations so as to determine their quantity, their quality, their relation with respect to each other, and finally their modality (their relation to our higher capacity for cognition).

Once again, there are different readings of the claim that the function of thinking is found by looking at the abstracted forms of the understanding in judgment. These different readings relate functions and judgments (and their logical forms) in different ways. These readings correspond to different readings of the tracing claim in the previous section, that all actions of

¹⁷⁰ *Wenn wir von allem Inhalte eines Urteils überhaupt abstrahieren, und nur auf die bloße Verstandesform darin Acht geben, so finden wir, daß die Funktion des Denkens in demselben unter vier Titel gebracht werden könne, deren jeder drei Momente unter sich enthält”* (A70/B95).

the understanding can be “traced back” to judgments. On an identity or reductive reading, we find the function of thinking that we bring under four titles just by realizing that there is nothing more to the functions of thinking than the logical forms. This reading essentially identifies functions with judgments. As such, this reading of this claim implies a reductive reading of the metaphysical deduction and does not fit with my interpretation of logical functions. However, this is not the only reading available of this claim. On a realization reading, we find the function of thinking in general by looking at the logical form not because it is identical to the logical form of a judgment, but rather because it is essentially realized in the logical form of a judgment. This reading keeps functions and judgments (and their logical forms) distinct, though it holds that we find the former by looking at the latter. As such, it fits nicely with my interpretation of the logical functions.

(Affirmative Function is not Infinite Function): In his discussion of the different headings, Kant mentions that the function of the understanding exercised in infinite judgments is different from that exercised in affirmative judgments (A71f/B97).¹⁷¹

Kant is explicit here that although in general logic, infinite judgments are understood as a species of affirmative judgments (both counting as logical affirmations), transcendental logic considers “the value or content of the logical affirmation made in a judgment by means of a merely negative predicate and what sort of gain this yields for the whole of cognition” (A72/B97).¹⁷²

Thus, affirmative and infinite judgments are identical in that they both treat a predicate as

¹⁷¹ “Eben so müssen in einer transzendentalen Logik **unendliche** Urteile von **bejahenden** noch unterschieden werden, wenn sie [unendliche Urteile] gleich in der allgemeinen Logik jenen [bejahende Urteile] mit Recht beigezählt sind und kein besonderes Glied der Einteilung machen” (A71f/B97).

¹⁷² “Jene [transzendentaler Logik] aber betrachtet das Urteil nach dem Werte oder Inhalt dieser logischen Bejahung vermittelt eines bloß verneinenden Prädikats, und was diese in Ansehung des gesamten Erkenntnisses für einen Gewinn verschafft” (A72/B97).

agreeing with a subject, but in infinite judgments, this is a merely negative predicate. This leads Kant to hold that in transcendental logic, there is a difference in the cognitive gain of these two kinds of judgments. This difference seems to imply that they are grounded in the exercise of different functions, which Kant notes that should keep distinct insofar as the infinite function's contribution to content "may perhaps be important in the field of its pure *a priori* cognition [*die hierbei ausgeübte Funktion des Verstandes vielleicht in dem Felde seiner reinen Erkenntnis a priori wichtig sein kann*]" (A73/B98).¹⁷³ This claim is compatible with my interpretation of the logical functions, for it allows for functions to be distinct from forms. Indeed, it suggests that the difference between the affirmative and infinite function may be more important than that between affirmative and infinite judgment. For this latter difference can be ignored for the purposes of general logic. As such, it suggests that we should keep functions and forms distinct from each other. Nothing in this claim then has to be read in a way that counts against my interpretation of the logical functions.

(Uniqueness of Modality): modality is a special function of judgments insofar as it contributes nothing to the content of a judgment (A74/B99f).¹⁷⁴

I discussed this claim in the last chapter, noting that for Kant the function of modality does not concern the content of our representations but rather the way in which this content is taken up by our higher capacity of cognition. Although Kant speaks here of the function of judgments and proceeds to focus on different modally determined judgments or propositions, nothing here requires that we identify judgments and functions. Modally determined judgments and

¹⁷³ One way in which one can see the difference between these two functions in the field of pure *a priori* cognition is in trying to gain pure *a priori* cognition of noumena. For noumena can be determined according to the infinite function in, e.g., infinite judgments about noumena without thereby positively determining any noumena.

¹⁷⁴ "*Die Modalität der Urteile ist eine ganz besondere Funktion derselben, die das Unterscheidende an sich hat, daß sie nichts zum Inhalte des Urteils beiträgt*" (A74/B99f).

propositions can simply be seen as manifolds of discursive representations that have been ordered by realizing a modal function. Accordingly, this claim is compatible with my reading of logical functions.

(Functions of Modality as Moments of Thinking in General): the functions of modality can be called the moments of thinking in general (A76/B101).¹⁷⁵

Kant infers this claim about the modal functions from the claim that “everything here is gradually incorporated into the understanding so that one first judges something problematically, then assumes it assertorically as true, and finally asserts it...as necessary and apodictic” (A76/B101).¹⁷⁶ The context of “here” is that of syllogistic thinking where Kant has noted earlier in the paragraph that the same judgment can be determined first problematically as a component judgment of a hypothetical syllogism, then assertorically in the minor premise of a syllogism, and finally apodictically in the conclusion of a syllogism. Kant’s thought here seems to be that there is an explanatory ordering in the modal determination of any judgment in general, where in order to think it apodictically, we must first think it assertorically, and in order to think it assertorically, we must think it problematically. This is a progression in modal determination that applies to any thought whatsoever. These functions are thereby moments of thinking in general because they present the different moments in which a thought is generated by the intellect’s reflective activity and incorporated into the content grasped by the intellect. I will discuss the modal functions in more detail below. What is relevant for my present purposes is that, although Kant focuses his discussion of these functions on the way they are realized in judgments, this is

¹⁷⁵ “...so kann man diese drei Funktionen der Modalität auch so viel Momente des Denkens überhaupt nennen” (A76/B101).

¹⁷⁶ “alles sich gradweise einverleibt, so daß man zuvor etwas problematisch urteilt, darauf auch wohl es assertorisch als wahr annimmt, endlich... als notwendig und apodiktisch behauptet“ (A76/B101).

compatible with my interpretation of logical functions as strictly distinct from judgments and their logical forms.

As I have indicated, different readings of the key claims Kant makes about functions in the first two sections of the *Leitfaden* chapter seem to imply different readings of the metaphysical deduction. As such, they ultimately seem to stand and fall together with their corresponding reading metaphysical deduction. Although I have noted some reasons throughout to favor some of my preferred interpretation of these claims about functions, I shall now make a more extended case for my interpretation. I will argue that my realization interpretation (of these claims about functions) can provide an answer to Proops's "vexed question" while an identity or reductive interpretation cannot. For now, it should be clear that nothing in Kant's claims about functions in these first two sections must be interpreted as incompatible with my interpretation of the logical functions of the understanding and their relation to the logical forms of judgment.

3.2 Functions/Forms and Proops's "Vexed Question"

I argue that my realization reading of the logical functions and function can answer the question of how the metaphysical deduction is meant to provide (a) a principled identification of the categories as well as (b) an account of the a priori origin of the categories. As we have seen, Proops argues that Kant cannot appeal to an isomorphism between the table of categories and the table of judgments as evidence for the view that what it is to be a category just is to be a function of judgment in its application to a manifold of sensibility unless Kant has a means of identifying the categories independent of the argument of the metaphysical deduction. I argue that the table of the moments of thinking provides a principled identification of the categories *qua* table of logical forms of judgment, for these are epistemically prior to the logical functions. That is, we

can identify the categories as systematically complete by seeing them as corresponding to the logical forms of judgment. This provides a means of principally identifying the categories that does not rely on the metaphysical deduction itself. This same table, however, provides legitimacy to the categories *qua* table of logical functions of the understanding by our tracing their origin to these functions. For it is these functions that are the fundamental a priori resources of the understanding and whose application in sensibility constitutes the generation or original acquisition of the categories. The metaphysical deduction can therefore accomplish its twofold goal of principally identifying the categories and of providing them with a (defeasible) legitimacy based on their a priori origin by relying on the duality of the table of the moments of thinking.¹⁷⁷ It is the isomorphism between the table of logical *functions* and categories that Kant can appeal to as evidence that what it is to be a category is just to be a function of judgment in its application to a manifold of sensibility. Kant can make this argument because his principled identification of the categories is strictly speaking not based on this isomorphism but rather on the isomorphism between the table of logical *forms* and that of the table of categories, which is epistemically prior to that between the tables of the logical functions and categories.

In my reading, the categories are principally identified as corresponding to the elementary logical forms, but the legitimacy of these concepts is established by their a priori origin in the logical functions. This is the same a priori origin that the logical forms of judgment themselves possess. So, it is an origin based solely on the understanding as a capacity to bring forth

¹⁷⁷ As noted in chapter one, Kant's general philosophical methodology is holistic, so all the arguments in the *Critique* have to be considered as defeasible until the whole philosophical system is complete.

representations (Cf. A51/B75).¹⁷⁸ Once this a priori origin of the categories is established, it provides a defeasible legitimacy to the categories. For the concepts of objectively necessary connections between beings are brought forth by the activities understanding itself when employed to think of *Gegenstände* given to the understanding in sensibility. In this way, we can understand how the duality of the table of the moments of thinking (which is a key feature of the realization interpretation of the relationship between logical forms and functions) allows this table to serve both (a) as the ground of the principled identification or discovery of the pure concepts of their understanding as well as (b) as their legitimizing origin. By contrast, the identity or reductive reading cannot answer Proops's question in this way. Indeed, there is a way in which this reading does not seem in a position to even begin to answer the question. For in this reading, the table of judgments contains only the logical forms of judgment (which just are the logical functions). As such, this reading can only rely on a single isomorphism between the table of judgments and that of the categories in trying to make sense of the project of the metaphysical deduction. This isomorphism could either be used to provide an argument for the origin of the categories or to give a principled identification of the categories, but not both. As such, this interpretation of the logical functions seems unable to answer Proops's "vexed question" and thereby fails to give an adequate interpretation of the metaphysical deduction and its dual task.

Having argued for my realization interpretation, I now turn to spell out the resulting view of the logical functions and logical forms, both of which are represented in the table of the moments

¹⁷⁸ In the Introduction to the first *Critique*, Kant characterizes the understanding as "the capacity to bring representations forth itself, or the spontaneity of cognition [*so ist...das Vermögen, Vorstellungen selbst hervorzubringen, oder die Spontaneität des Erkenntnisses, der Verstand*]" (A51/B75).

of thinking in general. I proceed to elaborate on the role these two aspects of the table play in the project of the *Leitfaden* chapter and the metaphysical deduction as a whole.

3.3 Two Aspects of the Table of the Moments of Thinking in Judgment

By interpreting the connection between logical functions of the understanding and logical forms of judgment as I have, I follow Wolff and Longuenesse in proposing that we interpret this table as representing both logical forms and logical functions. As Wolff notes (1995, 19f), the dual characterization of this table can be confusing, and it has often misled Kant interpreters to identify the logical forms with the logical functions.¹⁷⁹ Wolff maintains (1995, 32) and Longuenesse (1998, 78n10) agrees that the notion of logical functions is a transcendental notion, while that of the logical forms is a merely logical one, and so that the table of the moments of thinking belongs to general logic insofar as it contains logical forms, while it belongs to transcendental logic insofar as it contains logical functions. This strikes me as correct. Furthermore, I agree with Reich when he interprets function generally as “the ‘law’ of the action or operation” “abstracted from the conditions under which alone it [the action]” may be performed” (1992, 27). In doing this, Reich highlights the agreement between Kant’s notion of logical function with the mathematical concept of function as “the law of an operation that combines different (variable) quantities and coordinates them” (Ibid.). Thus, Reich interprets logical functions as the laws of the representation-ordering acts that are the logical forms,

¹⁷⁹ Notably, H.J. Paton claims, “Kant, when he speaks of understanding and judgment, uses the word /function/ as synonymous with the word ‘form’. The functions of understanding are the same – at any rate in their denotation – as the forms of understanding; and the functions of judgment, or the functions in judgment, are the same as the forms of judgment” (1936, 246-7). Wolff notes that, although most interpreters do not show it as explicitly as Paton, they nonetheless exhibit a similar misunderstanding (1998, 20n32). As Rosenkoetter adds (2009, 561n34), (Bennett 1966, 92) is another example of failing to distinguish between functions and forms.

considered in abstraction from the conditions under which these acts can take place. Wolff agrees with Reich's interpretation of the logical functions as laws of the acts of the understanding, noting that it makes sense to think of these functions and these laws as the same (as Reich does) (1995, 56n30)¹⁸⁰ and that functions, as unities of acts, are not temporally localizable processes, unlike actions (Ibid., 22).¹⁸¹ I think these commentators have helped us better understand the logical functions of the understanding. But I wish to build on the work of these scholars by developing an interpretation of the logical functions that is rich enough to ground a systematic articulation of the "unique actions [*eigenen Handlungen*]" (*Disc.* 8:221) in which each pure concept of the understanding is originally acquired (through an exercise of a logical function to unite an act that orders a certain manifold of representations).

Moreover, I seek to articulate more clearly than other interpreters how the logical functions and logical forms separately and jointly play a role in the *Leitfaden* project and the argument of the metaphysical deduction. On the interpretation I favor, the logical forms of judgment are epistemically prior to the logical functions of the understanding, being the essence of the understanding as the capacity to judge and so the elementary acts of the intellect as a capacity for discursive representations. By attending to the structure of these elementary acts, we can discover what elementary unifying activities, what elementary *functions* ground the possibility of these (and other representation-ordering) acts. That is, the logical forms serve as the *rationes cognoscendi* of the logical functions (and categories), allowing us to discover the logical functions and the categories. By contrast, the logical functions serve as the *rationes essendi* of

¹⁸⁰ Wolff follows a suggestion by Reich and explicitly identifies the function of the understanding [*Funktion des Verstandes*] in the *Leitfaden* chapter of the first *Critique* with the "basic laws of the understanding" [*Grundgesetze des Verstandes*] in the Letter to Herz of February 21, 1772 (1995, 56).

¹⁸¹ He writes, "*Im Unterschied zu Handlungen sind numerische Handlungseinheiten keine zeitlich lokalisierbaren Vorgänge*" (1995, 22).

the logical forms (and the categories), allowing us to deduce (and thus legitimize the use in thinking of) the categories by tracing their origin to these unities of acts that are prior in the order of being.¹⁸² I turn now to articulate how the logical forms and functions play these roles.

3.3.1 Logical Forms as *Rationes Cognoscendi* of Logical Functions

In my interpretation, the guidance to the complete and systematic discovery of the pure concepts of the understanding takes place in several steps. First, the idea of the capacity to judge allows us to systematically discover the logical forms of the understanding in a way that allows us to determine a priori (a) the position of each of these logical forms in their hanging together [*Zusammenhang*] in a system (A64/B89), and (b) their joint completeness (each form constituting an organically arising fundamental determination of the four basic dimensions of acts of judgment that jointly capture all traditionally conceived acts of the intellect). This was the focus of chapter two. In the present chapter, I propose to spell out how Kant intends to infer from the systematically complete presentation of the logical forms of judgment, which jointly constitute the essence¹⁸³ of the capacity to judge, to the systematically complete presentation of

¹⁸² As Smit notes, this and other distinctions between different kinds of grounds were part of the conception of demonstrative science shared by Leibniz, Wolff, Crusius, and Kant among other Leibnizians (2009, 200-1). Kant also employs the *ratio cognoscendi/essendi* distinction when discussing the relationship of the moral law to freedom in a footnote in the *Critique of Practical Reason*. He notes, “whereas freedom is indeed the *ratio essendi* of the moral law, the moral law is the *ratio cognoscendi* of freedom” (*KpV* 5:5n). The moral law gives us epistemic access to freedom insofar as in deliberation we take it to be binding, but freedom grounds the possibility of the moral law’s being binding. As Kant puts it, “were there no freedom, the moral law would not *be encountered* at all in ourselves” (*KpV* 5:5n).

¹⁸³ I follow Houston Smit in interpreting the essences of these cognitive capacities as formal essences, which are neither real nor logical essences (2019b, 40f). A formal essence is the first inner principle of the (inner) possibility of a representation that, insofar as it can be realized in some suitable matter, constitutes the sensible or intellectual form of a cognition that is possible for us. I interpret the formal essence of the understanding as a capacity to judge as the first inner principle of the (inner) possibility of judgment as a representation and the formal essence of the understanding as a capacity to bring forth representations itself or combine *a priori* as the first inner principle of the (inner) possibility of bringing forth combinations a priori.

the *logical functions* of the understanding. This is essentially an inference from the essence of the understanding as a capacity to judge to the essence of the understanding as a capacity to bring forth representations itself (A51/B75) or to combine *a priori* (B135). On my view, this is an inference from the logical concept of the understanding to the higher concept. Like that of the logical forms, the systematically complete presentation of the logical functions requires that we determine a priori (a) the position of each of these logical functions in their *Zusammenhang* in a system, and (b) their joint completeness. I undertake this task in the last part of this chapter. Then in the next chapter, I spell out how Kant infers from the systematically complete presentation of the higher concept of the understanding (constituted by the logical functions) to the transcendental concept of the understanding (constituted by the pure concepts of the understanding). This last step consists of giving an account of each of the *eigenen Handlungen* in which the categories are originally acquired.

The claim that the logical forms are epistemically prior to the logical functions needs to be qualified by a distinction Wolff has noted that cuts across forms and functions: the distinction between the basic [*Grund-*] and the elementary [*Elementar-*] (functions and forms). Wolff notes that Kant seems to hold that there are four basic kinds of logical functions. That is, there are four basic functions [*Grundfunktionen*] of the understanding, corresponding to each of the headings of the table,¹⁸⁴ each of which can be realized in three ways such that there are twelve elementary functions [*Elementarfunktionen*] as irreducible acts of the understanding (1995, 26-7). There is a

¹⁸⁴ Wolff (1995, 56) notes that even if it may very well be that Kant did not have as complete before his eyes the table of the moments of thinking, we need to reckon with the possibility that Kant had decided much earlier than 1777 to divide systematically both forms of judgment and categories into four classes. For already in the Letter to Herz from February 21, 1772, Kant notes that categories are divided into (four) classes through a few basic laws of the understanding so that they no longer have to be placed (as Aristotle did) simply next to one another: “*sie [die Kategorien] sich selbst durch einige wenige Grundgesetze des Verstandes von selbst in classen eintheilen*” „*nicht wie bei Aristoteles*“ “*aufs bloße Ungeföhr neben einander*” (Br. 10:132).

similar distinction to be made between basic logical forms and elementary logical forms (Ibid., 9-10, 16-17). Indeed, this distinction between four basic kinds of spontaneity, each of which can be realized in three ways (yielding twelve irreducible acts of spontaneity) holds across the tables of the moments of thinking and of the categories. Armed with these distinctions, Wolff maintains (rightly, to my mind) that Kant argues from there being four basic logical functions to there being four basic logical forms and then argues from there being twelve elementary forms to there being twelve elementary functions. Thus, the basic functions are epistemically prior to basic and elementary logical forms, and elementary logical forms are in turn prior to the elementary logical functions. Still, it remains the case that it is only by systematically arranging the elementary logical forms together and seeing them as realizations of the basic logical functions that we can discover all the elementary logical functions. Armed with Wolff's distinction, we can note the elementary logical forms serve as the ground of our cognition of the elementary functions.

The logical forms of judgment, which jointly constitute the logical concept of the understanding, thus serve as the ground of our cognition of the logical functions, which jointly constitute the higher concept of the understanding. We infer from the former to the latter by prescind from the specifically discursive aspects of acts of judgment so as to uncover the unities of acts that ground the possibility of these discursive acts. This is how our cognition of the logical forms of judgment grounds our cognition of the logical functions of the understanding. I now discuss how these functions ground the possibility of these forms.

3.3.2 Logical Functions as *Rationes Essendi* of Logical Forms (and Categories)

In my interpretation, the logical forms serve as the *rationes cognoscendi* of the logical functions, but the functions serve as the *rationes essendi* of the logical forms, grounding their possibility. As noted above, I interpret the logical functions of the understanding as temporally undetermined unifying acts of our cognitive faculties that order representations and ultimately make temporally ordered thought and experience possible as their effect. This interpretation of the logical functions implies a certain view of how they ground the possibility of judgments (and so their logical form). I argue that, as unities of representation-ordering acts (of which judgments are a species), they make acts of judgment possible by uniting the consciousness that orders discursive representations in a way that yields judgments. The logical functions are thus the reflective or meta-cognitive acts by means of which we grasp ourselves as ordering or combining representations in general by treating them according to rules. It is because we have the capacity to grasp ourselves as ordering representations according to rules and thereby determine those representations as ordered according to those rules that we are able to order concepts and judgments and determine them according to the rules constituted by the logical forms.

This way of reading the way the logical functions ground the possibility of the logical forms (which sees logical functions as moments of reflection) is supported by Kant's claims in section 15 of the B-deduction that "among all representations, combination is the only one that is not given through objects, but rather can only be executed by the subject itself since it is an act of its self-activity [*unter allen Vorstellungen die Verbindung die einzige ist, die nicht durch Objekte gegeben, sondern nur vom Subjekte selbst verrichtet werden kann, weil sie ein Actus seiner Selbsttätigkeit ist*]" (B130). As Smit has rightly pointed out, Kant uses 'self-activity' or

'spontaneity' in a technical Leibnizian sense that has a context with an Aristotelian conception of activity, capacity, and power (2009, 240). A power is that in virtue of which something acts and so constitutes a sufficient real ground of some determination. A capacity is the inner possibility of a power. Self-activity or spontaneity is a species of activity in which the inner principle of the capacity is sufficient to determine the power it realizes, where this power constitutes the being of the subject of power endowed with the capacity (Ibid.). An act of self-activity by the understanding then consists in the determination of an effect for which the inner principle of the understanding as a capacity is sufficient. Acts of combination then are acts in which the inner principle of the understanding, as a spontaneous, intellectual capacity, is sufficient to determine the effect of bringing forth combinations (as representations).¹⁸⁵

I propose then that we interpret judgment as a species of combination that the understanding brings about in ordering discursive representations in particular.¹⁸⁶ Acts of judgment thereby consist in determinations of effects of bringing about orderings or combinations of discursive representations for which the inner principle of the understanding as a capacity is sufficient. On this way of reading Kant, the capacity to bring forth representations is thus a condition of the possibility of the capacity to judge. Each logical function specifies a way of grasping oneself as combining manifolds of representations in general according to rules. Each logical form is thereby a realization of a logical function, a way of grasping oneself as combining manifolds of

¹⁸⁵ Kant notes in section 15 that combination "is the representation of the synthetic unity of the manifold [*Verbindung ist Vorstellung der synthetischen Einheit des Mannigfaltigen*]" (B131). Thus, combination is thus not merely a synthetic unity, but rather a representation of a synthetic unity and so a unique kind of representation that is brought forth by the understanding. I thank Houston Smit for pointing out to me the importance of distinguishing synthetic unity and combination by emphasizing that the latter is a representation of the former (ms). This forms part of a general reading Smit develops of Kant's notion of representation and cognition in *Kant's Theory of Cognition*.

¹⁸⁶ The spontaneity of the understanding is ultimately to be understood as a conditioned rather than absolute spontaneity. This conditioned spontaneity "is one in which the inner principle of a subject's self-activity is not determined solely by that individual subject's exercise of its capacity" (2009, 241). In particular, the affection of sensibility is required for understanding to bring forth its representations.

discursive representations in particular according to rules. In this way, each logical form is made possible by a logical function. With this general account of the relationship between logical forms and function in hand, I now turn then to analyze in detail how the individual logical forms of judgment and logical functions of the understanding relate to each other.

3.4 From Individual Logical Forms of Judgment to Individual Logical Functions of the Understanding

On the interpretation I have been developing, the elementary forms of judgment jointly constitute the essence of the understanding as a capacity to judge. This essence is represented by the logical concept of the understanding that captures the logical use to which we may put this capacity. These elementary acts of judgment are acts that order discursive representations under communal ones. But they are themselves grounded in and unified by the exercise of logical functions, as unities of acts that order representations in general under communal ones. These functions then constitute the higher concept of the understanding, which captures the activities of the understanding involved in any use of this capacity. Below, I undertake a critical discussion of how one can infer from each elementary logical form to each elementary logical function, aiming to articulate the argumentative support for the claim that the table of logical functions is systematically complete. As with the table of logical forms, its completeness factors into (1) the inter-heading completeness of the four headings, and (2) the intra-heading completeness of the three moments under each heading, such that there are four primary moments of logical function, each of which has three elementary variants or moments. We discover the individual logical functions by deriving them from the logical forms. We do this by considering what unifying

activities ground the possibility of different combinations of discursive representations that constitute the logical forms. The completeness of logical functions is therefore ultimately based on the completeness of the logical forms, which itself is based on that of the idea of the capacity to judge. As I argued in the previous chapter, the completeness of the four headings of the logical forms essentially consists of the different logical forms capturing the basic operations of the intellect understood as basic dimensions of acts of judgment. The inter-heading completeness of the logical functions would then seem to consist of the four basic functions' constituting the unifying, reflective activities that make possible the four basic dimensions of acts of judgment.

My focus is, once again, to contribute an argument for (2) the intra-heading completeness of the three moments under each heading. My strategy is to argue that the three logical functions under each heading (like the logical forms) meet the conditions for synthetic *a priori* divisions from concepts. According to these conditions, the first member of the division conditions and opposes the second member, and the third member combines the conditioned (second member) with its opposing condition (the first member). In other words, the first logical function unites the act of combining a manifold in a unity of consciousness. The second logical function is conditioned by the first and connects a manifold in the opposite way and so in an opposing unity of consciousness. Finally, the third logical function unites the act of combining the conditioned with its conditioned, thereby uniting the act that combines these opposing unities of consciousness. I seek to show that the logical functions under each heading meet these requirements and thereby to show that the logical functions under each heading thereby constitute an exhaustive synthetic *a priori* division from concepts of the concepts of <function of quantity>, <function of quality>, <function of relation>, <function of modality>.

I pursue this strategy by looking at the different elementary logical forms and inquiring what unifying activities of the understanding make these logical forms possible. I then note how the elementary logical functions can be understood as unifying activities that order representations by treating them using the corresponding concept of reflection. I propose that we interpret the first logical functions under each heading as unities of representation-ordering acts that order representations by treating them according to the first corresponding concept of reflection. Similarly, I suggest that the second functions are unities of representation-ordering acts that order representations by treating them according to the second corresponding concept and that the third functions do so by treating them according to both the first and second concepts of reflection, albeit in different ways. By showing that the logical functions meet these conditions, we can show that the three logical functions exhaust the possible determinations of the basic functions of the understanding. For in meeting these conditions, these three members constitute (1) an initial function that unites the act that provides an initial combination, (2) a second function that stems from the initial one insofar as it unites the act that provides an opposing, conditioned combination, and (3) a final function that stems from the first two insofar as it unites the act that combines these two opposed combinations. By showing how the functions under each heading meet these conditions, we thereby show that the three different elementary functions under a heading (which constitute determinations of a basic function) arise organically one from the other and are built up systematically.

I turn now to implement this strategy and systematically derive the individual functions from individual forms for each heading so as to cognize the systematic completeness of these functions.

3.4.1. From Forms to Functions of Quantity

As noted in the previous chapter, the logical forms of quantity consist of ways of ordering concepts under communal representations such that a quantity of subject-representations (representations falling under the subject-concept) is determined as falling under the predicate-concept. There are three elementary variants of such concept-ordering acts, corresponding to whether all, some, or one subject-representations are determined as falling under the predicate-concept. Given this, we can think of the quantitative logical forms as forms of judgment that determine the domain of representations (the relevant quantity of subject-representations) that can be subsequently ordered with each other and with the intellect by applying other basic logical forms to them. In other words, quantitative logical forms determine what quantity of representations serve as the basis or starting point for discursive representation-ordering acts (where this basis can be ordered according to qualitative, relational, and modal logical forms). The subject-representations determined by the quantitative logical forms are ordered with the predicate-concept according to qualitative logical forms. This quantitatively and qualitatively determined subject-predicate complex of representations can then be ordered with other judgments according to relational logical forms, and to the intellect according to modal logical forms. By considering what makes these quantitative acts that order concepts under communal representations possible, we can discover what logical *functions*, what “unities of acts,” ground the possibility of these quantitative concept-ordering acts by uniting them. These quantitative functions would thus seem generally to be unities of acts that order representations under communal ones in such a way that they determine a quantity of representations as the basis or starting point for subsequent exercises of other basic logical functions. These subsequent

exercises of other basic logical functions in turn order these quantitatively ordered basis-representations with respect to other representations and to our higher capacity for cognition.

As for the quantitative logical forms, two opposing kinds of quantitative logical functions can be distinguished analytically, each of which can be described as an activity that unifies representation-ordering acts by treating these representations according to one of the two concepts of reflection of quantity (<identity> and <diversity/difference>). The representations ordered by the exercise of the quantitative logical functions (and thus determined as a quantity of basis representations) are treated either as identical or as different. In the first case, the representation-ordering act is united by the exercise of the universal logical function, while in the second case, the representation-ordering act is united by the exercise of the particular logical function. In treating the representations that it specifies as the basis for other exercises of functions as identical, the universal logical function orders these representations into a unified quantity of representations, i.e., a unit. The universal judgment "All humans are (not) mortal" exemplifies this by treating the subject-representations (humans) falling under the subject-concept <human> as identical by having <mortal> apply (or not) to all of them. But as we shall see, applications of this logical function that treat other kinds of representations as identical and so as a unified quantity are possible. By contrast, in treating the representations it orders as different, the particular logical function orders these representations into a differentiated (and therefore manifold) quantity of representations. The particular judgment "Some humans are (not) women" exemplifies this by treating subject-representations (humans) as different by having the predicate-concept <woman> apply (or not) to some but not all of them, and so as a differentiated or diverse (and thus manifold) quantity of representations (into those falling under <woman> and

those not). However, applications of this logical function that treat other kinds of representations as a diverse and so manifold quantity of representations are possible.¹⁸⁷

We can see that these two logical functions unite acts that order representations in opposing ways and so constitute opposing unities of consciousness. The representations ordered by the exercise of the universal function are ordered into a unit where they are treated as identical. By contrast, the representations ordered by the exercise of the particular function are ordered into a differentiated quantity, which (as differentiated) must have heterogeneous parts that are treated as different. Moreover, the universal logical function contains the condition of the particular logical function insofar as it unites the act of ordering basis-representations into a unified quantity. This unified quantity is differentiated into a quantity with differing constituents by the particular function. So, the exercise of the particular logical function specifies something conditioned by the exercise of the universal logical function, for the particular function presupposes the application (or at least applicability) of the universal function. Thus, the first two members of the division of quantitative logical functions meet the requirements Kant specifies for members of a synthetic division a priori from concepts. If the third member of this division is to meet these requirements, then it must unite acts that combine these opposing unities of consciousness, i.e., it must unite acts that combine the relevant condition with its conditioned.

The singular function meets these requirements, for it consists in the unity of the act of ordering representations in a way that designates a singular individual. That is, the singular logical function combines (1) the property of the universal function of uniting acts that order

¹⁸⁷ It is worth noting that the exercise of the particular function, in treating basis-representations as different introduces a kind of indeterminacy in the quantity of representations it orders. As we shall see in the next chapter, the indeterminacy transfers to the category of <plurality>.

basis-representations into a determinate quantity of identically treated representations with (2) the property of the particular function of uniting acts that order basis-representations into an ordering treated as different from others. The singular logical function can thereby be seen as employing both the concepts of <identity> and <difference/diversity [*Verschiedenheit*]>. For it treats the basis-representations it orders as designating the same individual and so as identical, yet as different from other representations insofar as only they are treated as designating that individual. The singular judgment ‘This human is a philosopher’ exemplifies this by treating subject-representations under the subject-concept <human> as identical in virtue of designating the same individual that is thereby treated as different from other beings in being determined as falling under <philosopher>. As we shall see, applications of this logical function that treat other kinds of representations as designating an individual are also possible.¹⁸⁸

We have seen that the three different quantitative logical functions meet the requirements of a trichotomous synthetic *a priori* division from concepts. They thereby constitute an exhaustive such division of the concept of <logical function of quantity>. Thus, we can see that the functions under the heading of quantity constitute a complete and systematic presentation of one of the four basic ways of uniting representation-ordering acts to bring forth combinations of representations in general.

¹⁸⁸ It is worth noting, as we did for the logical forms, that the universal function alone has the property of ordering basis-representations into a unified whole quantity. So, the singular logical function does not plausibly contain within itself the universal logical function. It merely shares a property with it. Similarly, the particular function alone has the property of ordering basis-representations into a differentiated, indeterminate quantity, so the singular logical function does not plausibly contain the particular logical form. Thus, nothing in this third function requires an appeal to a special act that combines the whole first and second functions in a way that produces the third function. The same holds for the other logical functions.

3.4.2 From Forms to Functions of Quality

As noted in the previous chapter, the logical forms of quality consist of ways of ordering concepts under communal representations such that subject- and predicate-concepts are determined with respect to each other. There are three elementary variants of such concept-ordering acts, corresponding to whether the subject-concept is determined as positively determined by the predicate-concept, as negatively determined by the predicate-concept, or as positively determined by a negative predicate-concept. We can think of the qualitative logical forms as forms of judgment that determine the quality of quantitatively ordered (discursive) basis-representations with respect to other representations. By considering what makes these qualitative acts that order concepts under communal representations possible, we can discover what logical *functions*, what “unities of acts,” ground the possibility of these qualitative concept-ordering acts by uniting them. These qualitative functions would seem generally to be unities of acts that order representations under communal ones in such a way that they determine the quality of quantitatively determined basis-representations with regard to other representations.

As for the quantitative logical forms, two opposing kinds of qualitative logical functions can be distinguished analytically, each of which can be described as an activity that unifies representation-ordering acts by treating these representations according to one of the two concepts of reflection of quality (<agreement> and <conflict/opposition [*Widerstreit*]>). The representations ordered by the exercise of qualitative logical functions are treated either as agreeing or as conflicting with other representations. In treating the quantitatively determined basis-representations it orders as agreeing with each other, the affirmative logical function thereby orders these representations in a way that determines them as having some positive

quality. The affirmative judgment “All humans are rational” exemplifies this by treating the quantitatively determined subject-concept <human> (and all its subject representations: humans) as agreeing with the predicate-concept and so as positively determined by it, i.e., as falling under <rational>. As we shall see, applications of this logical function that treat other kinds of basis-representations as agreeing and so as having a positive quality are possible. In treating the basis-representations it orders as opposing each other, the negative logical function orders these representations in a way that determines them as having some negative quality. The negative judgment “Some animals are not rational” exemplifies this by treating the quantitatively determined subject-concept <animal> (and only some of its subject-representations) as conflicting with the predicate-concept and so as negatively determined by it, i.e., as not falling under <rational>. However, applications of this logical function that treat other kinds of basis-representations as opposing other representations and so as having a negative quality are possible.

We can see that these two logical functions unite acts that order representations in opposing ways and so constitute opposing unities of consciousness. The (quantitatively determined) representations ordered by the exercise of the affirmative logical function are ordered in a way that positively determines them in virtue of their being treated as agreeing with some representations. By contrast, the (quantitatively determined) representations ordered by the exercise of the negative logical function are ordered in a way that negatively determines them in virtue of their being treated as opposing some representations. Moreover, the affirmative logical function contains the condition of the negative logical function insofar as it unites the act of ordering basis-representations so as to determine them positively, while the negative function

determines these representations merely negatively. As such, the negative function presupposes the application (or at least applicability) of the affirmative logical function. We see then that the first two members of the division of qualitative logical functions meet the requirements Kant specifies for members of a synthetic a priori division from concepts. For the third member of this division is to meet these requirements, it must unite acts that combine these opposing unities of consciousness, i.e., it must unite acts that combine the relevant condition with its conditioned.

The infinite logical function meets this requirement, for it consists in the act of treating (quantitatively determined) basis-representations as agreeing with some representations yet also opposing them insofar as they are not positively determined with respect to them. It thereby consists of a way of ordering representations under communal ones in a way that yields both positive and negative determinations of these representations. In other words, the infinite logical function combines (1) the property of the affirmative logical function of determining basis-representations positively, and (2) the property of the negative logical function of determining basis-representations in a way that determines them negatively. The infinite logical function can thereby be seen as employing both the concepts of <agreement> and <opposition>. After all, it treats the basis-representations it orders as agreeing with other representations but in a way that also opposes these, i.e., in a way that yields positive and negative determinations of those representations. The infinite judgment "The soul is non-mortal" (A72/B97) exemplifies this by treating the quantitatively determined subject-concept <soul> as agreeing with a merely negative concept <non-mortal> and so as having a positive and negative determination. For the subject-representations falling under <soul> are determined positively by a concept but in such a way

that does not positively determine these representations so as to expand the determinations we think under the concept <soul>.¹⁸⁹

We have seen that the different qualitative logical functions meet the requirements of trichotomous synthetic *a priori* divisions from concepts. They thereby constitute an exhaustive such division of the concept of <logical function of quality>. Thus, we can see that the functions under the heading of quality constitute a complete and systematic presentation of the second of the four basic ways of uniting representation-ordering acts to bring forth combinations of representations in general.

3.4.3 From Forms to Functions of Relation

As noted in the previous chapter, the logical forms of relation consist of ways of ordering discursive representations under communal ones such that they determine the inferential relations between judgments that share the concepts ordered by the relationally determined judgment. There are three elementary variants of such discursive representation-ordering acts, corresponding to what a relationally determined judgment asserts. (1) The relationally determined judgment asserts the unconditional truth of an atomic judgment. In this case, the relational judgment unconditionally determines a subject-concept with respect to a predicate-concept and is thus categorical. (2) The relationally determined judgment asserts conditions for

¹⁸⁹ Note that the affirmative function alone has the property of ordering representations in a way that positively determines basis-representations, expanding the cognition we may have through them. Thus, the infinite logical function does not plausibly contain the affirmative logical function as a constituent part. It merely shares a property with it. Likewise, only the negative logical function has the property of determining basis-representations as opposing other representations in a way that yields a purely negative determination of representations. Thus, the infinite logical function does not plausibly contain the negative function within it but rather shares a property with this latter function. Again, nothing in this third logical function requires an appeal to a special act of the understanding the combines the first and second logical functions so as to derive the third.

the truth of a judgment. In this case, the relational judgment determines the conditions under which a subject-concept is determined with respect to a predicate-concept and is thus hypothetical. Finally, (3) the relationally determined judgment asserts the unconditional truth of a complex judgment by asserting the conditions under which its constituent judgments are true. In this case, the relational judgment unconditionally determines a subject-concept with respect to some predicate-concepts by determining the conditions under which the subject-concept is determined with respect to the predicate-concepts and is thus disjunctive. We can think of the relational logical forms as forms of judgment that determine the relations between quantitatively and qualitatively determined judgments. By considering what makes possible these relational acts that order discursive representations under communal ones, we can discover what logical functions, what unities of acts, ground the possibility of these discursive acts by uniting them. These relational functions would seem generally to be unities of acts that order representations under communal ones in such a way that they determine the relation of quantitatively and qualitatively determined representations with regard to other such representations. Just as for the relational logical forms, two opposing kinds of relational logical functions can be distinguished analytically. Each of these functions can be described as an activity that unifies representation-ordering acts by treating these representations according to one of the two concepts of reflection of relation (<inner> and <outer>). The quantitatively and qualitatively determined representations ordered by the exercise of the relational logical functions are treated as relating either through an unconditional (or internal) relation or through a conditional (or outer) relation. In treating the quantitatively and qualitatively determined representations as having an unconditional or internal relation, the categorical logical function thereby posits an atomic

content in these representations that can serve as the basis for conditioned and complex contents. The categorical judgment “All humans are rational” exemplifies this by treating the ordering of subject- and predicate-concepts as asserting the unconditional truth of an atomic judgment that determines <human> (and all representations falling under it) as falling under <rational>. However, as we shall see, other applications of this logical function that treat other kinds of quantitatively and qualitatively determined representations as unconditionally positing an atomic content are possible. In treating the quantitatively and qualitatively determined representations as having a conditional or outer relation, the hypothetical logical function thereby posits the conditions under which a content is posited by the understanding. The hypothetical judgment “If there exists a perfect justice, then persisting evil will be punished” exemplifies this by treating different quantitatively and qualitatively determined judgments in such a way that it unconditionally asserts the truth of “There exists a perfect justice” as the condition for the truth of “Persisting evil will be punished.” But as we shall see, applications of this logical function that treat other kinds of quantitatively and qualitatively determined representations as positing the outer condition for the positing of a content are possible.

We can see that these two logical functions unite acts that order representations in opposing ways and so constitute opposing unities of consciousness. The representations ordered by the exercise of the categorical logical function are ordered in a way that relates them unconditionally and thereby posits an atomic content. By contrast, the hypothetical logical function does not unconditionally posit a content. It only posits the conditions for the positing of a content. Moreover, the categorical logical function contains the condition for the hypothetical logical function insofar as only the categorical function posits an atomic content unconditionally.

That is, the application of the hypothetical function seems to presuppose the application (or at least the applicability) of the categorical function.¹⁹⁰ We see then that the first two members of the division of relational logical functions meet the requirements Kant sets for members of a synthetic a priori division from concepts. For the third member of this division to meet these requirements, it must unite acts that combine these opposing unities of consciousness, i.e., it must unite acts that combine the relevant condition with its conditioned.

The disjunctive logical function meets these requirements. For it consists in the act of relating (quantitatively and qualitatively determined) representations to each other such that a complex content is unconditionally posited by the understanding in and through its positing the conditions for the positing of the constituent contents. In other words, the disjunctive function combines (1) the property of the categorical logical function of unconditionally positing a content with (2) the property of the hypothetical function of positing the conditions for the positing of a content. The disjunctive logical function thus structures the representations it orders according to a reciprocal relation of opposition and community: the component contents whose conditions we posit are opposed to each other; yet together they form a community in jointly grounding the positing of a complex content. The disjunctive logical functions can therefore be seen as employing both the concepts of <inner> and <outer> albeit in different ways, for it unconditionally, i.e., internally, posits a content, but only insofar as it posits the outer, conditioned relations between contents. Additionally, insofar as it orders representation into a community, it also relates representations as parts of a whole of representations. The disjunctive

¹⁹⁰ As noted in the last chapter, also supported by Kant's claims in the *Prolegomena* that "in the logical, categorical judgments are the basis of all others" (*Prolog.* 4:325*) and in the *Vienna Logic* that "[c]ategorical judgments constitute the basis of all the remaining ones" (*VL* 24:933).

judgment "The world exists either through blind chance, or through inner necessity, or through an external cause" exemplifies this by unconditionally asserting the truth of the whole judgment but only insofar as it asserts the conditions for the truth (and falsity) of all the component judgments. It does this by forming a community or whole of judgments in which if any one of the judgments is true, then the other two are false, and if any two are false, then the remaining one is true. But other applications of this logical function to order different kinds of quantitatively and qualitatively determined representations are possible.¹⁹¹

We have seen that the three different relational logical functions meet the requirements of a trichotomous synthetic *a priori* division from concepts. They thereby constitute an exhaustive such division of the concept of <logical function of relation>. Thus, the functions under the heading of relation constitute a complete and systematic presentation of the third basic way of uniting representation-ordering acts to bring forth combinations of representations in general.

3.4.4 From Forms to Functions of Modality

As noted in the previous chapter, the logical forms of modality consist of ways of ordering concepts under communal ones such that judgments are related to the higher capacity for cognition in general. There are three elementary variants of such discursive-representation ordering acts: A judgment is thought either merely problematically (and so as merely thinkable), assertorically (as determinately true or false), or apodictically (as necessarily true or false). We

¹⁹¹ It is once again worth noting that the categorical function alone has the property of unconditionally positing an atomic content, so the disjunctive logical function does not plausibly contain the categorical one. Likewise, the hypothetical logical function alone has the property of merely positing the condition under which a content is to be posited (i.e., without unconditionally asserting any content). Thus, the disjunctive logical function does not plausibly include the hypothetical. Once again then, nothing in this third logical function requires an appeal to a special act of the understanding the combines the first and second logical functions so as to derive the third.

can think of the modal logical forms as forms of judgments that determine the content of judgments (itself constituted by determinations of representations according to the other three basic logical forms) with respect to our higher capacity for cognition in general. By considering what makes these modal acts that order discursive representations under communal ones possible, we can discover what “unities of acts,” i.e., what logical functions, ground the possibility of these modal acts. These modal functions would seem generally to be unities of acts that order representations (that have been determined by the first three basic functions) under communal ones in a way that determines their relation to the higher capacity of cognition. Following the treatment of the modal logical forms, we can think of the modal functions as unities of acts that unify representation-ordering acts in general by treating the representations they order according to the concepts of reflection of modality: (<matter> and <form>). The (quantitatively, qualitatively, and relationally determined) representations ordered by the exercise of the modal functions are treated either as determinable/combinable or as actually determined/combined in that way. In treating these representations as determinable, the problematic logical function thereby thinks of these representations as a merely possible combination of representations. The problematic logical form exemplifies this by treating the (quantitatively qualitatively, and relationally determined) judgment(s) it orders as merely determinable with respect to a truth-value. An example of this is the antecedent in a hypothetical judgment (e.g., “There exists a perfect justice” in “If there exists a perfect justice, then persisting evil will be punished”). But as we shall see, applications of this logical function that treat other combinations of representations as merely determinable are possible. In treating these representations as actually determined in this combination, the assertoric logical function thereby

thinks of these representations as a determined combination of representations. The assertoric logical form exemplifies this by treating the (quantitatively, qualitatively, and relationally determined) judgments it orders as determined or true, as in the major premise of a categorical syllogism (e.g., “All humans are mortal”). But as we shall see, applications of this logical function that treat other combinations of representations as determined are possible.

We can see that these two logical functions unite acts that order representations in opposing ways and so constitute opposing unities of consciousness. For the representations ordered by the exercise of the problematic logical function are treated as a merely determinable combination, whereas the representation ordered by the exercise of the assertoric logical functions are treated as actually determined and so combined. Moreover, the problematic function contains the condition of the assertoric insofar as something can only be determined if it is determinable. That is, the exercise of the assertoric logical function presupposes the applicability of the problematic logical function. So, the first two members of the division of modal functions seem to meet the requirements Kant sets for members of a synthetic a priori division from concepts. If the third member of this division is to meet these requirements, then it must unite acts that combine these opposing unities of consciousness, i.e., it must unite acts that combine the relevant condition with its conditioned.

The apodictic logical function meets these requirements, for it consists in the act of uniting an act that determines a combination of representations as necessary because this combination is grounded in other representations that serve as the ground of the combination of representations. This consists not just in determining and so actually combining the representations but also in determining this combination or determination as itself determinable

insofar as it is grounded in or determined by the representations that ground it. In other words, the apodictic logical function combines (1) the property of the problematic logical function of determining the combinations of representations it orders as determinable (because determined) with (2) the property of the assertoric logical function of determining the combination of representations as actually combined. The apodictic logical function can thereby be seen as employing both the concepts of <matter> and <form>. For it treats the combinations of representations it orders both as a determinate combination (form) of these representations and as a determined (and so determinable (matter)) combination as necessary because grounded in other representations. The apodictic logical form exemplifies this by treating the (quantitatively, qualitatively, and relationally determined) judgments it orders as determinately true and as determinable and determined as necessary because grounded in other judgments. Examples of this include conclusions of syllogisms, which are treated as determinately true and as determinable because they are determined as necessary in being grounded in the relevant major and minor premises of the syllogism. But we shall see that other applications of logical functions that treat other combinations of representations as determined and determinable are possible.¹⁹²

We have seen that the three different modal functions meet the requirements of a trichotomous synthetic *a priori* division from concepts. They thereby constitute an exhaustive such division of the concept <logical function of modality>. Thus, we can see that the functions under the heading of modality constitute a complete and systematic presentation of the fourth of the four basic ways of uniting representation-ordering acts.

¹⁹² It is once again worth highlighting that the problematic function alone has the property of ordering the combination of representations as merely combinable. Thus, the apodictic function does not plausibly contain within itself the problematic one. Similarly, the assertoric function alone has the property of ordering the combination of representations as only determinable. As with other the headings then, nothing in this third function requires appealing to a special act that combines the first two functions to produce the third either.

3.5 Conclusion

In this chapter, I have argued for my interpretation of Kant's progression from the logical concept of the understanding to the higher concept of the understanding as it takes place in the first two sections of the *Leitfaden* chapter. If what I have argued is correct, then the table of the moments of thinking *qua* table of logical *functions* systematically presents all the elementary determinations of all the basic dimensions of the form of ordering representations in general under communal ones. It thereby presents all different elementary reflective activities of the understanding as a capacity to bring forth representations itself (A51/B75)¹⁹³ and to combine a priori (B135).¹⁹⁴ I should note, however, that there are limitations to what this argument accomplishes. To be sure, the argument gives each of the twelve logical functions a well-motivated, organic, and systematic place by seeing it as an elementary act of the capacity to bring forth combinations of representations, a capacity which is rich enough to encompass all fundamental reflective acts of the intellect. Given that each logical form and function is systematically generated and that they arise organically, it is tempting to conclude that there is no room for additional logical functions. However, it does not seem that the argument licenses the conclusion that other elementary (irreducible) logical functions are impossible. We have seen in the previous chapter that, as Thöle points out (2001, 488), Kant does not seem entitled to the assumption that further subdivisions in logical forms are impossible. It seems that the same can be said for the logical functions. Thus, Kant can claim that each logical function has a systematic place but cannot justifiably claim that additional irreducible logical functions are impossible.

¹⁹³ “so ist...das Vermögen, Vorstellungen selbst hervorzubringen, oder die Spontaneität des Erkenntnisses, der Verstand” (A51/B75)

¹⁹⁴ *Der Verstand selbst nicht weiter ist, als das Vermögen, a priori zu verbinden*” (B135).

Nevertheless, I hope to have shown that each logical function represents an irreducible act of the capacity to bring forth or combine representations and that there is some form of argumentative support for the claim that the twelve logical functions of the understanding systematically capture the essence of our “capacity to bring forth representations itself” (A51/B75).

With this, the explication of the higher concept of the understanding as the capacity to bring forth representations itself (as drawn from the logical concept of the understanding as the capacity to judge) is complete. I turn in the next chapter to look at the third step of the *Leitfaden* argument, at how this higher concept of the understanding leads to the transcendental concept of the understanding, constituted by the categories or pure concepts of the understanding.

CHAPTER 4 – THE GENERATION OR ORIGINAL ACQUISITION OF THE CATEGORIES AND THE REAL CONCEPT OF THE UNDERSTANDING

4.1 Introduction

In this chapter, I build on my interpretation of the logical functions of the understanding and the logical forms of judgment to argue for my account of how the categories are originally acquired or generated in and through an application of logical functions to manifolds of intuition. This is the place where I give a systematic account of the “*eigenen Handlungen*” (Disc. 8:221) in which each category is generated. Here I focus on spelling out in detail these category-generating actions. In the next chapter, I relate this account to the text of the metaphysical deduction and argue that my interpretation, on the whole, offers a more convincing interpretation of the argument and of the *Leitfaden* chapter than other extant ones according to the standards set out in chapter one.

As emphasized in the previous chapters, my proposed interpretation relies centrally on Kant’s characterization of function as the “unity of the action of ordering several representations under a communal one [*Einheit der Handlung verschiedenen Vorstellungen unter einer gemeinschaftlichen zu ordnen*]” (A68/B93). Again, much may be said about Kant’s rich conception of function. However, what is central to my purposes is that, a function *per se* is not a representation-ordering act but rather the unity of such an act. Emphasizing that functions are first and foremost *unities* of representation-ordering acts, rather than representation-ordering acts themselves, helps us see that the same function can be used to order different representation-ordering acts, i.e., acts that order different kinds of representations. Of particular relevance for my purposes is that when we consider functions in this way, we can see the same functions can

be employed to order (a) discursive or conceptual representations¹⁹⁵ (in which case they constitute logical forms of judgment), and (b) perceptual representations or intuitions (in which case they constitute pure concepts of the understanding).

These forms of judgment are acts that order discursive representations under communal ones. As such, they are made possible by corresponding logical functions that give unity to these acts: the logical functions of the understanding. We can therefore discover the functions of the understanding by looking at what makes the logical forms possible. As I've mentioned Kant seems to note this at the end of the first section of the *Leitfaden* chapter when he writes, "The functions of the understanding can therefore all be found together if one can exhaustively exhibit the functions of unity in judgments" (A69/B94).¹⁹⁶ I interpret the "functions of unity in judgment" as the logical functions *realized* in logical forms in judgments that order discursive representations and the "functions of the understanding" as the logical functions as such, considered in abstraction from their realization in acts of judgments. We thus discover the logical functions by exhibiting the logical forms of judgment and then looking at what unities make them possible. Upon doing so, we can then go on to discover the pure concepts of the understanding by applying these functions not to concepts but rather to intuitions. This is in keeping with Kant's own characterizations of the pure categories as "representations of things in general [*Vorstellungen der Dinge überhaupt*] insofar as the manifold of their intuition must be thought through one or another of these logical functions" (A245) in the A-Edition *Phenomena Noumena* Chapter and as "concepts of a *Gegenstand* in general through which its intuition is

¹⁹⁵ As mentioned in chapter one, these include concepts, judgments that combine concepts, and inferences or syllogisms that combine judgments.

¹⁹⁶ "Die Funktionen des Verstandes können also insgesamt gefunden werden, wenn man die Funktionen der Einheit in den Urtheilen vollständig darstellen kann" (A69/B94).

regarded as determined with respect to one of these logical functions to judge [*Funktionen zu urteilen*]" in the B-Edition transition to the transcendental deduction (B128).¹⁹⁷

On my interpretation then, we first grasp the logical forms as the elementary acts of thinking. Then we grasp the logical functions as the activities that make possible these elementary acts of thinking. Finally, we grasp the categories, the elementary concepts of *Gegenstände*, as applications of these functions to certain manifolds of intuition in general.

In what follows, I spell out the details of this account for each individual category. I begin by reviewing the individual logical forms of judgment and functions of the understanding. As spelled out in previous chapters, my interpretation relates both logical forms and functions under each heading with the corresponding concepts of reflection.¹⁹⁸ After discussing each individual logical form and its relation to the concepts of reflection, I discuss how the logical function that makes each form possible constitutively employs the relevant concepts of reflection. Finally, I explain how the application of each function to certain manifolds of intuition in general generates each of the twelve categories, thereby giving an account of the “*eigenen Handlungen*” in which each category is originally acquired.

¹⁹⁷ Other parallel passages that suggest this view of the relation of the logical functions and categories are a footnote in the Preface of the *Metaphysical Foundations* and a passage in section 39 of the *Prolegomena* in which Kant discusses the function-category relations (*MF* 4:474*, *Prolog.* 4:324).

¹⁹⁸ As emphasized in chapters two and three, I do this following Kant, who himself connects these in a passage in the Amphiboly (A262/B318). Kant associates the first two concepts of reflection corresponding to each heading with the first two logical forms under a heading. Though he does not himself associate the third moments with these concepts explicitly, I propose that we should interpret the third moments as deploying both the first and second concepts of reflection on each heading, albeit in different ways.

4.2 Generating the Categories of Quantity from the Functions of Quantity

4.2.1 Forms and Functions of Quantity

The first basic dimension or primary moment of the logical form of judgments in general is the quantity of judgments. It concerns the quantity of the representations falling under the subject-concept of which the predicate-concept is predicated. The quantitative logical forms of judgment thus consist of ways of ordering concepts under communal representations such that a quantity of subject-representations (representations falling under the subject-concept) is determined as falling under the predicate-concept. These forms then concern the quantity of representations to which we apply predicate-concepts. We can think of the quantitative logical forms as forms of judgment that determine the domain of representations (the relevant quantity of subject-representations) that can be subsequently ordered with each other and with our higher capacity of cognition by applying other logical forms. By considering these quantitative acts that order concepts, we can discover what logical *functions*, what “unities of acts,” ground the possibility of these quantitative concept-ordering acts by uniting them. Given that the quantitative forms determine a quantity of representations so that they may be determined by the subsequent basic logical forms, we can think of the quantitative functions as unities of acts that order representations under communal ones in a way that determines a quantity of representations as the basis or starting point for exercises of subsequent basic logical functions. These subsequent logical functions are exercised to order these quantitatively ordered basis-representations with respect to other representations and to our higher capacity of cognition).

There are three elementary logical forms of quantity, corresponding to whether all, some, or one subject-representation is determined as falling under the predicate-concept: universal,

particular, and singular. Each of these forms leads to an elementary logical function of quantity that makes it possible. I shall take up each of these forms and its corresponding function in order, relating them both to the corresponding concepts of reflection of quantity.

In a judgment determined by the universal logical form, the thinker grasps the subject-concept so that the predicate-concept is applied to the whole quantity of subject-representations. This judgment thereby treats the subject-representations it orders as identical, for they are all treated as falling under the predicate-concept. As such, universal judgments can be understood as judgments that order concepts by treating them according to the first quantitative concept of reflection: <identity>. The function that makes universal judgments possible is the universal function. The universal function unites representation-ordering acts by treating the basis-representations it orders according to <identity>. As such, this function treats the representations it orders as identical, thereby ordering them into a unit, i.e., a unified quantity of representations. An example of an exercise of the universal function is the universal judgment ‘All humans are mortal,’ which treats the whole quantity of subject-representations under <human> as a unit that falls under <mortal>.

In a judgment determined by the particular logical form, the thinker grasps the subject-concept so that the predicate-concept is applied to only an indeterminate partial quantity of subject-representations. This judgment thereby treats the subject-representations it orders as different, for they are treated as falling under the predicate-concepts while other subject-representations are not. As such, particular judgments can be understood as judgments that order concepts by treating them according to the second quantitative concept of reflection: <diversity/difference [*Verschiedenheit*]>. The function that makes particular judgments possible

is the particular function. The particular function unites representation-ordering acts by treating the basis-representations it orders according to <difference>. So, this function treats the representations it orders as diverse or different, thereby ordering them into a diverse or differentiated (and thereby manifold) quantity of representations. An example¹⁹⁹ of an exercise of the particular function is the particular judgment ‘Some humans are philosophers,’ which treats an indeterminate subset of subject-representations falling under <human> as an indeterminate quantity that falls under <philosopher>. But as we shall see shortly, the particular function can be applied to other kinds of manifolds of representations.

In a judgment determined by the singular logical form, the thinker grasps the subject-concept so that the predicate-concept is applied to a singular individual falling under the concept. I propose that this judgment thereby treats the subject-representations it orders as identical in designating an individual yet also as different from others in being thought of as falling under the predicate-concept. As such, I propose that singular judgments can be understood as judgments that order concepts by treating them according to both quantitative concepts of reflection (albeit in different ways). The function that makes these judgments possible is the singular function. This function unites representation-ordering acts by treating the basis-representations it orders according to both <identity> and <difference>. So, this function treats the basis-representations it orders as identical in virtue of designating a single individual and as thereby different from others. An example²⁰⁰ of an exercise of the singular function is the singular judgment ‘This human is a philosopher.’ In this judgment, the concepts of <human> and <philosopher> are

¹⁹⁹ Kant gives other examples of particular judgments in the *Metaphysik Volckmann* lecture notes: ‘Some are learned’ (*MV* 28:396) and in the *Vienna Logic* lectures: “Some men are mortal” (*VL* 24:931). In the former example, the subject concept would seem to implicitly be humans).

²⁰⁰ Other examples of singular judgments include one given in his lectures on metaphysics: “Julius Caesar is learned” (*MV* 28:396) and his lectures on logic “Julius Caesar is mortal” (*VL* 24:931).

related such that <philosopher> is predicated of a single subject-representation falling under <human>, thereby designating a single individual falling under this predicate and who is therefore a philosopher. However, as we shall see, the singular function can be applied to other kinds of manifolds of representations.

With this review of the quantitative logical functions and of their relation to the quantitative concepts of reflection in hand, I spell out how the application of these functions to order manifolds of intuition in general generates the categories of quantity.

4.2.2 Generating the Categories of Quantity

As noted above, the exercise of the universal function treats the basis-representations it orders according to the concept <identity> and thereby orders these representations into a unit or unified quantity. I propose then that the category of <unity> is generated by the exercise of the universal logical function to order a certain manifold of representations: a manifold of intuition in general.²⁰¹ When we exercise this function to unite the act of ordering a manifold of intuition in general (instead of a manifold of concepts) under communal representations, we thereby order this sensible manifold into a unit, that is, a unity of sensible intuitions. In this way, we think the category <unity> as a unit in intuition by exercising the universal logical function to unite the act of ordering a manifold of intuition in general under communal representations. As Michael Friedman notes, the most natural way of understanding the categories of unity is in terms of their

²⁰¹ Here any manifold of sensible intuition without any particular determination will do. For humans, the manifold must be a spatiotemporal manifold. But other subjects of discursive understanding with a non-spatiotemporal form of sensibility are possible. These subjects would generate the very same pure concepts of the understanding as us by using them to order different sensible manifolds. However, their schematized categories would be different, for they would not share our transcendental schemata, which as transcendental time determinations require a temporal inner sensibility.

role in measurement (2013, 92). Friedman rightly points out that the category of unity determines a unit of measure (Ibid.). This is supported by Kant's association of unity and measure in the table of categories he gives in the *Prolegomena* (4:303). An example of a use of the category of unity is the determination of a region of space as a centimeter. In this application, we apply the universal function to a manifold of intuition consisting of an extended region of space, thereby treating the intuitions making up this region as identical in constituting a unified quantity: a unit of length.

The exercise of the particular function treats the basis-representation it orders according to the concept <diversity> and thereby orders these representations into a diverse or differentiated and therefore manifold quantity of representations. I propose then that the category of <plurality> is generated by the exercise of the particular function to order a particular manifold of representations: a manifold of intuition in general thought under <unity>. When we exercise this function to unite the act of ordering a manifold of intuition in general thought under unity, we thereby treat this unity in intuition as a differentiated and therefore manifold quantity. In this way, we think the category <plurality> as a plurality of unities in intuition by exercising the particular function to unite the act of ordering a manifold of intuition in general and <unity> under a communal representation. This interpretation of the category of plurality and its relation to the particular function is supported by Kant's noting in the A-Edition of the *Phenomena and Noumena* Chapter that magnitude [*Größe*] is the determination which can only be thought through a judgment that has quantity, (a particular judgment) (*judicium commune*) (A245f). As Friedman notes, the category of plurality concerns the determination of a multitude or aggregate of units and so with magnitude in general (2013, 92). This is supported by Kant's associating

plurality with “magnitude [*Größe*]” in the *Prolegomena* (4:303). An example of a use of the category of plurality is the determination of an aggregate of centimeters. In this application, we apply the particular function to extended regions of space thought under <unity>, thereby treating the intuitions making up these regions as constituting a differentiated and therefore manifold quantity: an indeterminate magnitude of length. Note that the essential indeterminacy of plurality is inherited from the particular function, which similarly specifies an undetermined or indeterminate quantity of subject-representations as being related to a predicate-concept in the particular logical form.

We see then how the category of <unity> is generated by an application of the universal function to a manifold of intuition in general and how the category of <plurality> is generated by an application of the particular function to a manifold of intuition in general thought under the category of <unity>. Similarly, I propose that the category of <totality>, which Kant tells us is “plurality considered as unity” (B111), is generated by an application of the singular function to a manifold of intuition in general thought under the categories of <unity> and <plurality>. As we have seen Kant emphasizes that, the combination of unity and plurality by itself does not yet constitute a totality. An example²⁰² of such a combination is “the representation of the infinite,”

²⁰² Another similar example of a combination of unity and plurality that does not yet involve totality in the above-mentioned letter to Schultz. Here Kant notes that the concepts of *quantum*, *compositum*, and *totum* belong under the categories of unity, plurality, and totality respectively and adds that a *quantum* can be thought as a *compositum* without yet involving the concept of totality, because its quantum is not thought as determinable through the composition (of the *compositum*), as in the case of infinite. Thus, the concept of infinite space also constitutes an example of a combination of unity and plurality that does not yet constitute a totality. It seems then that, by contrast, a quantum that were thought as determinable through composition (that is, where the parts are prior to the whole, unlike space in which the whole is prior to parts) would be a totality. Kant’s discussion of infinite space here raises complications that I cannot deal with at present insofar as it indicates that infinite space is not a totality, even though it seems to be a totality insofar as it is a *totum analyticum* (rather than a *totum syntheticum*). In other words, infinite space is a whole, albeit one that is not preceded by its parts (A438/B 466). For an illuminating take on this kind of *totum analyticum* and its relation to synthesis in Kant, see Kjosavik, Frode (2013).

which he holds is not a totality, not a “number.”²⁰³ Here the relevant representation of the infinite would seem to be the “true (transcendental) concept of the infinite” which is “that the successive synthesis of the unity in the transversal (*Durchmessung*) of a quantum can never be completed” (A432/B460). As Daniel Sutherland highlights, Kant’s point here “is that we may think of a plurality of unities whose synthesis never reaches completion” (2004, 433). Infinity then, as a plurality of unities whose synthesis never reaches completion is different from totality, which is “plurality considered as unity” that is, whose synthesis into a unity is complete.

In order to generate <totality> from the combination of <unity> and <plurality> then a “special act of the understanding” (B111) is required. As Wayne Waxman points out, the special act that generates totality must include “the thought that expressly excludes the incorporation of any additional magnitude (unity or plurality) into the plurality, and this is done by determining the plurality as a unity” (2013, 295). This seems correct so far as it goes, but Waxman does not explain how the understanding determines plurality as a unity in a way that differs from the mere combination of plurality and unity. What seems to be required is that this determination considers the plurality of unities as united so as to designate a singular individual constituted by the united pluralities. As we have seen, the singular function unites acts that order representations so as to designate a singular individual, thereby treating the representations as identical in virtue of their designating the same individual and also as different from other representations. Thus, by employing the singular function to unite the combination of a manifold of intuition in general thought under <unity> and <plurality>, we think <totality> as a plurality (of unities) considered as a single unity. As Friedman notes, the category of totality determines

²⁰³ As Daniel Sutherland notes, Kant follows others in the early modern period in holding that numbers must be finite (2004, 433).

that we have summed up a multitude of units to obtain a definite result, a whole of units (2013, 92). This is supported by Kant's associating the category of totality with "the whole" in the *Prolegomena* (4:303). An example of a use of the category of totality is the determination of ten aggregate of centimeters. In this application, we apply the singular function to extended regions of space thought under <unity> and <plurality> (that is, as a plurality of unities), thereby treating them as identical in designating a determinate whole of ten units of length and thereby as different from other representations.

In this section, I have given a systematic account of the "*eigenen Handlungen*" in which each quantitative category is generated by a certain application of the corresponding quantitative functions to manifolds of intuition in general. I turn to extend this account to the generation of the other categories.

4.3 Generating the Categories of Quality from the Functions of Quality

4.3.1 Forms and Functions of Quality

The second basic dimension or primary moment of the logical form of judgments in general is the quality of judgments. It concerns the quality predicated of the (quantitatively determined or at least quantitatively determinable²⁰⁴) subject-concept and its subsumed representations. As

²⁰⁴ Although I think paradigmatic exercises of the qualitative logical forms presuppose exercises of the quantitative logical forms (and more generally, exercises of posterior forms presuppose exercises of the prior forms), I agree with Wolff that Kant allows for the possibility of quantitatively undetermined judgments, called "indefinite judgments" in the traditional logic of the time, and other judgments that are undetermined according to the basic logical forms (1995, 16). Wolff gives "It's raining [*es regnet*]" as an example of a quantitatively and relationally undetermined judgment that is affirmative and assertoric (1998, 16n26). I agree that this is plausibly a quantitatively undermined judgment, but *pace* Wolff, I think we can see this judgment as having an implicit categorical determination. For plausibly, this judgment treats the concepts it orders as internally asserting that an implicit subject (the current weather, sky, environment) falls under the predicate <raining> in a way that can serve as a major premise in categorical syllogisms whose minor premise and conclusion share the concepts of this judgment (e.g., 'a

such, the qualitative logical forms of judgment consist of ways of ordering concepts under communal representations such that the quantitatively determined subject-concept is treated as agreeing with the predicate-concept, as opposing it, or as both agreeing with and opposing it. These forms then concern the quality predicated of the subject-concepts and their subsumed representations. We can think of the qualitative logical forms as forms of judgments that determine the quality of the domain of representations determined by the quantitative logical forms. By considering these qualitative concept-ordering acts, we can discover what logical functions ground the possibility of these qualitative concept-ordering acts by uniting them. Given that the qualitative forms determine the quality of the quantitatively determined domain of representations with respect to other representations, we can similarly think of the qualitative functions as unities of acts that order representations under communal ones in a way that determines the quality of the basis-representations (ordered by the exercise of quantitative functions) with respect to other representations.

There are three elementary logical forms of quality, corresponding to whether the quantitatively determined subject representations are treated as agreeing with the predicate-concept, as opposing it, or as both agreeing and opposing it: affirmative, negative, and infinite. Each of these forms leads to an elementary logical function of quality that makes it possible.

In a judgment determined by the affirmative logical form, the thinker determines the (quantitatively determined) subject-concept and representations falling under it as agreeing with the predicate. The judgment thereby treats these quantitatively determined discursive representations as agreeing with respect to each other. As such, affirmative judgments can be

raining (sky, weather, environment) is hard to see in' and 'it (the current sky, the weather, the environment) is hard to see in').

understood as judgments that order concepts by treating them according to the first qualitative concept of reflection: <agreement>. The function that makes affirmative judgments possible is the affirmative function. This function unites representation-ordering acts by treating the quantitatively determined basis-representations it orders according to <agreement>. That is, this function treats the quantitatively determined basis-representations it orders as agreeing with others, thereby determining them as having a positive quality. An example²⁰⁵ of an exercise of the affirmative function is the affirmative judgment ‘All humans are mortal,’ which treats <human> and all representations falling under it as agreeing with the predicate-concept <mortal>. But this function can be applied to other kinds of manifolds of representations.

In a judgment determined by the negative logical form, the thinker determines the (quantitatively determined) subject-concept and representations falling under it as opposing the predicate. The judgment thereby treats these quantitatively determined discursive representations as opposing each other and so as having a negative quality. As such, negative judgments can be understood as judgments that order concepts by treating them according to the second qualitative concept of reflection: <opposition [*Widerstreit*]>. The function that makes negative judgments possible is the negative function. The negative function unites representation-ordering acts by treating the quantitatively determined basis-representations it orders according to <opposition>. That is, this function treats the quantitatively determined basis-representations it orders as opposing others, thereby determining them as having a negative quality. An example of an exercise of the negative function is the negative judgment ‘All brute animals are not rational,

²⁰⁵ Kant gives another example of an affirmative judgment in the *Metaphysik Volckmann*: ‘One human is mortal’ (*MV* 28:396-7).

which treats <brute animals> and representations falling under it as disagreeing with <rational> and so as not falling under it.

In a judgment determined by the infinite logical form, the thinker determines the (quantitatively determined) subject-concept and representations falling under it as agreeing but with a merely negative predicate such that the subject-representations are not positively determined. I propose that this judgment thereby treats the quantitatively determined discursive representations it orders according to both qualitative concepts of reflection: <agreement> and <opposition>, albeit in different ways. The function that makes these judgments possible is the infinite function. This function unites representation-ordering acts by treating the quantitatively determined basis-representations it orders according to both qualitative concepts of reflection. So, this function treats the basis-representations it orders as agreeing and opposing, that is as having both a positive and negative determination. An example²⁰⁶ of an exercise of the infinite function is the infinite judgment ‘The soul is non-mortal’ (A72/B97). In this judgment, the quantitatively determined concept <soul> is determined as agreeing with the concept <non-mortal> so that <non-mortal> is predicated of the soul but in a way that opposes this discursive representation in not determining anything positive about it, thereby yielding a positive and negative determination of this concept.

With this review of the qualitative logical functions and their relation to the qualitative concepts of reflection in hand, I spell out how the application of these functions to order certain manifolds of intuition in general generates the categories of quality.

²⁰⁶ Kant elaborates on this example of an infinite judgment in the *Metaphysik Volckmann*: ‘The soul is not-mortal’ (MV 28:396-7).

4.3.2 Generating the Categories of Quality

As noted above, the exercise of the affirmative function treats the quantitatively determined basis-representations it orders according to the concept <agreement> and thereby determines these representations as having a positive quality. I propose then that the category of <reality> is generated by the exercise of the affirmative logical function to order a manifold of intuition in general. When we exercise this function to unite the act of ordering a manifold of intuition in general (instead of a manifold of concepts) under communal representations, we thereby order this manifold of intuition so as to determine it as having a positive quality. In this way, we think the category <reality> as a positive quality by exercising the affirmative logical function to unite the act of ordering a manifold of intuition in general under a communal representation. This interpretation of the relation between the category of reality and the affirmative function is supported by Kant's discussion of this category in the A-Edition Phenomena Noumena chapter, where he notes that reality is the determination that can only be thought through an affirmative judgment (A245f).²⁰⁷ An example of a use of the category of reality is the determination of some degree of pleasure. In this application, we apply the affirmative function to a manifold of intuition, thereby treating this intuition as agreeing and therefore as having a positive quality.

The exercise of the negative function treats the quantitatively determined basis-representations it orders according to the concept <opposition> and thereby determines these representations as having a negative quality. I propose then that the category of <negation> is generated by the exercise of the negative logical function to order a manifold of intuition in

²⁰⁷ “Die reine Kategorien sind aber nichts anders als Vorstellungen der Dinge überhaupt, so fern das Mannigfaltige ihrer Anschauung durch eine oder andere dieser logischen Funktionen gedacht werden muß...Realität diejenige [Bestimmung], die nur durch ein bejahend Urteil gedacht werden kann” (A245).

general that is thought under <reality>. When we exercise this function to unite the act of ordering the concept <reality> and a manifold of intuition in general thought under it, we thereby treat this reality or positive quality in intuition as an opposing and therefore negative quality. In this way, we think the category <negation> as an essentially opposing reality, a negative quality, by exercising the negative function to unite the act of ordering a manifold of intuition in general thought under <reality> under a communal representation. Treating a representation according to <opposition> by itself allows the logical opposition between representations, but when intuitions, as singular representations, are treated in this way, the disagreement takes the form of a quality that stands in real opposition to other positive qualities in intuition.²⁰⁸ An example of a use of the category of negation is the determination of some degree of pain. In this application, we apply the negative function to a manifold of intuition thought under <reality>, thereby treating the intuition as an opposing i.e., negative quality in intuition that opposes pleasure, a negation.

We see then how the category of <reality> is generated by an application of the affirmative function to intuition in general and how the category of <negation> is generated by an application of the negative function to a manifold of intuition in general thought under the category of <reality>. I propose that the category of <limitation> is similarly generated by an application of the infinite function to a manifold of intuition in general thought under the categories of <reality> and <negation>. The combination of reality and negation by itself does not yet constitute a limitation. An example of such a combination is that of pleasure (a positive

²⁰⁸ As Kant notes in the *Metaphysik Volckmann*, real opposition consists of two grounds of which one cancels [*aufhebt*] the other, giving the example of pain canceling pleasure (*MV* 28:429). Here I agree with Daniel Warren that "a sensible property can be subsumed under the category of reality only if it can be regarded as a power to produce effects of a certain sort" (2013, xiv). That is, we must be able to subsume intuitions we can subsume under <reality> under <causality>.

reality) and vice (a negative reality that opposes a different positive reality, namely virtue).²⁰⁹ In this combination, the positive and negative determinations are not yet combined so as to oppose each other and thus yield a limitation, i.e., a degree of reality that consists of the opposition of a (positive) reality and a negation.

In order to generate <limitation> from the combination of <reality> and <negation> then, a special act of the understanding is required. This act must combine the reality and negation by opposing them in such a way that it yields a determination that is both positive and negative (i.e., is grounded in the opposition and cancelation of real grounds). As we have seen, the infinite logical function unites acts that order representations so as to yield both positive and negative determinations. Thus, by employing the infinite function to unite the act of ordering of a manifold of intuition in general thought under <reality> and <negation> under a communal representation, we think <limitation> as a quality consisting of an opposed reality and negation. An example of a use of the category of <limitation> is the determination of indifference resulting from an equal sum of pleasure and pain. In this application, we apply the infinite function to a manifold of intuition thought under <reality> and <negation>, thereby treating the intuition as a quality in intuition that is both a positive and negative determination, i.e., a limitation.

In this section, I have given a systematic account of the “*eigenen Handlungen*” in which each qualitative category is generated by a certain application of the corresponding qualitative functions to manifolds of intuition in general. I now extend this account to the categories of relation.

²⁰⁹ In a *Reflexion*, Kant names triples of realities, negations, and the limitations they yield when combined: pleasure, pain, indifference; truth, error, ignorance...virtue, vice, *adiaphoron* [morally indifferent character], benefit [*Nutzen*], [*Schaden*] harm, and being indifferent (*Refl.* 5580 18:239).

4.4 Generating the Categories of Relation from the Functions of Relation

4.4.1 Forms and Functions of Relation

The third basic or primary moment of the logical form of judgments in general is the relation of judgments. It concerns the relations that are thought in judgments (both within and between judgments). The relational logical forms of judgment consist of ways of ordering discursive representations under communal ones such that inferential relations between judgments are determined. These forms then concern the inferential relations between judgments that share the concepts ordered by the relationally determined judgment. The relational logical forms determine judgments by treating them as rules under which other possible judgments can fall so as to constitute a syllogism/inference of reason [*Vernunftschluß*]. As such, different relationally determined judgments constitute different acts of the power of reason insofar as they are different ways of drawing mediate inferences according to principles (cf. A299/B355). The relational determination of judgments is that in virtue of which “[j]udgments are acts of the understanding and of reason” (*Refl.* 2142, 16:250). We can think of the relational logical forms as forms of judgment that determine relations between quantitatively and qualitatively determined (or at least determinable) judgments. By considering these relational acts that order discursive representations, we can discover what logical functions, what unities of acts, ground the possibility of these discursive representation-ordering acts by uniting them. Given that the relational forms determine relations between quantitatively and qualitatively determined discursive representations, we can think of the relational functions as unities of acts that order quantitatively and qualitatively determined representations under communal ones such as to determine relations between these quantitatively and qualitatively determined representations.

There are three elementary logical forms of relation, corresponding to whether a judgment determines an intra-judgment subordination relation, an inter-judgmental subordination relation, or an inter-judgmental coordination relation: categorical, hypothetical, and disjunctive (cf. A73/B98f). Each of these forms leads to an elementary logical function of relation that makes it possible.

In a judgment determined by the categorical logical form, the thinker relates two (quantitatively and qualitatively determined) concepts by asserting the truth of a judgment that determines these concepts with respect to each other as something internal to the judgment. As such, categorical judgments can be understood as judgments that order (quantitatively and qualitatively determined) discursive representations by treating them according to the first relational concept of reflection: <inner>. This judgment thereby treats the concepts it orders as internally asserting a true judgment that can serve as a major premise of categorical syllogisms whose minor premise and conclusion share the concepts of the categorical judgment. The function that makes these judgments possible is the categorical function. The categorical function unites representation-ordering acts by treating the (quantitatively and qualitatively determined) representations it orders according to <inner>. As such, this function treats the representations it orders as internally positing an atomic content. An example of an exercise of the categorical function is the categorical judgment ‘All humans are mortal.’ This judgment treats the quantitatively and qualitatively determined <humans> and <mortal> by determining <human> and representations falling under it as falling under <mortal>. In this judgment, the atomic content that is posited is a discursive atomic content: an atomic judgment that relates

<human> and <mortal> in a judgment that can serve as a premise in categorical syllogisms in which these concepts occur.

In a judgment determined by the hypothetical form, the thinker relates two quantitatively and qualitatively determined judgments²¹⁰ by asserting the truth of one judgment as the external condition for the truth of the other. This judgment thereby determines the truth of one judgment (the ground) as the ground of the truth of the other (the consequence) without asserting the truth of either component judgment. The judgment thereby treats the (quantitatively and qualitatively determined) discursive representations it orders according to the second relational concept of reflection: <outer>. In doing so, the judgment treats the (quantitatively and qualitatively determined) discursive representations it orders as asserting the premise of possible hypothetical syllogisms such as *modus ponens*, *modus tollens*, and hypothetical syllogisms. The function that makes these judgments possible is the hypothetical (or ground-consequence) function.²¹¹ This function unites representation-ordering acts by treating the quantitatively and qualitatively determined representations it orders according to <outer>, treating them as positing the (external) conditions for the positing of a content. An example of an exercise of the hypothetical function is the hypothetical judgment, ‘If there exists a perfect justice, then persisting evil will be punished’ (A74/B98). In this judgment, it is asserted that the truth of ‘There exists a perfect justice’ serves as the condition for the truth of ‘Persisting evil is punished’ without settling on whether either of these is actually true.²¹² This judgment thereby asserts the major premise of possible syllogisms

²¹⁰ It is certainly possible to nest hypothetical and disjunctive judgments within each other, but these judgments must eventually have categorical judgments as their components.

²¹¹ In certain Lectures on Metaphysics, Kant seems to refer to this function in this way, e.g., *Metaphysik an-Politz* (ML₂ 28:548f) and *Metaphysik Mrongrovius* (MM 29:807).

²¹² These two judgments are examples of judgments that may not seem quantitatively and qualitatively determined. But I suggest that this determination is implicit. ‘There exists a perfect justice’ is arguably a singular judgment,

such as *modus ponens*, *modus tollens*, and hypothetical syllogisms in which the same concepts occur. However, the hypothetical function can be applied to other kinds of manifolds of representations so as to determine the conditions for the positing of a content, i.e., to determine some representations as the ground of others.²¹³

In a judgment determined by the disjunctive logical form, the thinker relates several judgments in a single judgment, asserting the truth of one complex judgment by asserting the external conditions for the truth of its component judgments:²¹⁴ if all but one of the disjunct judgments is false, then the remaining one is true, and if any one of the disjunct judgments is true, then the others are false. I propose that this judgment thereby treats the quantitatively and qualitatively determined discursive representations it orders according to both relational concepts of reflection: <inner> and <outer>, albeit in different ways. The function that makes these judgments possible is the disjunctive function. This function unites representation-ordering acts by treating the quantitatively and qualitatively determined representations it orders as internally

speaking of ‘a’ (that is, one) perfect (and so presumably universal) justice. It is also arguably an affirmative judgment to the extent that it treats <perfect justice> as agreeing with <existence>. Similarly, ‘Persisting evil will be punished’ is arguably a universal judgment. That is, all persisting evil is punished on the supposition of a perfect universal justice. I discuss complications concerning <existence> being a category below.

²¹³ Kant makes a distinction between logical grounds of cognition, which are treated in logic and real grounds of being, which are treated in metaphysics (*MV* 28:399).

²¹⁴ As Kant notes in his observations after presenting the table of the moments of thinking, “the disjunctive judgment contains the relations of two or more propositions to one another, though not the relation of sequence, but rather that of logical opposition, insofar as the sphere of one judgment excludes that of the other, yet at the same time the relation of community, insofar as the judgments together exhaust the sphere of cognition proper” (A73/B99). Thus, although the disjuncts are mutually exclusive, they stand in “a certain community of cognitions, consisting in the fact that they mutually exclude each other, yet thereby determine the true cognition **in its entirety**” (A74/B99). Or as he puts in the *Jäsche Logic*, the disjunct judgments related by the disjunctive logical form, “are all problematic judgments, of which nothing else is thought except that, taken together as parts of the sphere of a cognition, each the complement of the other toward the whole (*complement ad totum*), they are equal to the sphere of the first” (*JL* 9:107). As such, “it follows that in one of these problematic judgments the truth must be contained or —what is the same —that one of them must hold *assertorically* because outside of them the sphere of the cognition includes nothing more under the given conditions, and one is opposed to the other, consequently neither something *outside* them *nor* more than one *among* them can be true” (Ibid.). Kant holds this relation between the disjunctive logical form and the logical forms of modality, where all the disjuncts are problematic and one of them holds assertorically is “the peculiar character of all disjunctive judgments, whereby their specific difference from others, in particular from categorical judgments, is determined as to the moment of relation” (Ibid.).

positing a complex content by positing the conditions for positing the component contents. The disjunctive logical form thus structures judgments according to a reciprocal relation of logical opposition and community. This is what Kant notes in his discussion of disjunctive judgments in the second section of the *Leitfaden* chapter. Thinking a disjunctive judgment involves thinking a relation between judgments, “but not that of sequence [*Abfolge*], rather that of logical opposition, insofar as the sphere of one judgment excludes the other, yet at the same time the relation of community, insofar as the judgments together exhaust the sphere of actual [*die Sphäre der eigentlichen Erkenntnis ausfüllen*]” (A74/B99). An example²¹⁵ of an exercise of the disjunctive function is the disjunctive judgment. “The world exists either through blind chance, or through inner necessity, or through an external cause [*Die Welt ist entweder durch einen blinden Zufall da, oder durch innere Notwendigkeit, oder durch eine äußere Ursache*]” (A74/B99). In this judgment, the component judgments (1) ‘The world exists through blind chance,’ (2) ‘The world exists through inner necessity,’ and (3) ‘The world exists through an external cause’ are related in such a way that it is asserted that at most and at least one of them is true.²¹⁶ Consequently, this judgment asserts that if any one of them is true, then the others are false and that if any two are false, then the remaining one is true. This judgment thereby implicitly asserts the major premise of possible disjunctive syllogisms in which the component judgments and concepts occur. But this function can be applied to other kinds of manifolds of representations to posit a whole complex content by positing conditions for positing the component contents.

²¹⁵ Another example from *Metaphysik Volckmann* is “A triangle is either right-angled or not-right angled” (*MV* 28:397).

²¹⁶ These may seem like judgments that are not quantitatively or qualitatively determined, but again, I think the determination is implicit. These are all affirmative judgments that treat <the world> as agreeing with different composite metaphysical concepts (<existence grounded in blind chance>, <existence grounded in inner necessity>, <existence grounded in an external cause>) and singular judgments, as there is a single world.

With this review of the relational logical functions and their relation to the relational concepts of reflection in hand, I proceed to spell out how the application of these functions to order manifolds of intuition in general generates the categories of relation.

4.4.2 Generating the Categories of Relation

As noted above, the exercise of the categorical function treats the quantitatively and qualitatively determined representations it orders according to the concept <inner> and thereby posits an atomic content as internal to the act. I propose then that the category of <substance> is generated by an application of the categorical function to a manifold of intuition in general. When we exercise this function to unite the act of ordering a manifold of intuition in general under communal representations, we thereby order this manifold of intuition so as to posit an atomic intuitive content: a basic bearer of properties. In this way, we think the category <substance> as an atomic intuitive content. That is, we think an intuition as the last subject that bears qualitative properties. The interpretation of <substance> as treating intuitions according to <inner> is supported by Kant's discussion of the relation between substance and its accidents in the system of cosmological ideas in the Transcendental Dialectic. There, he notes that accidents are "not really subordinated to [substance] but are rather the way the substance itself exists [*die Art zu existieren Substanz selber*]" (A414/B441). That is, the relation between a substance and its accidents is an internal one insofar as the accidents are the way the substance itself exists. This interpretation is also supported by Kant's characterizations of substance as (a) "that which must be, in relation to intuition, the last subject of all other determinations [*was, in Beziehung auf die Anschauung, das letzte Subjekt aller anderen Bestimmungen sein muß*]" (A246) in the A-edition

Phenomena and Noumena chapter and (b) that through which it is determined that the intuition of a body in experience “must always only be regarded as subject and never as a mere predicate” (B128) in the B-edition transcendental deduction. An example of a use of the category of <substance> is the determination of a *Gegenstand* of outer intuition as a material substance bearing a sensible property, more concretely, a determination of a (piece of) metal as being heavy. In this exercise, we apply the categorical function to a manifold of outer intuitions that constitute the appearance of the metal, thereby treating the intuitions as internally positing an atomic intuitive content, a bearer of properties, a substance that bears an accident: the metal that bears heaviness.

As we have seen, the exercise of the hypothetical function treats the quantitatively and qualitatively determined representations it orders according to the concept <outer> and thereby posits the outer or external conditions for positing a content. I propose then that the category of <cause> is generated by an application of the <hypothetical> function to a manifold of intuition in general that is thought under <substance>. When we exercise this function to unite the act of ordering the concept <substance> and a manifold of intuition in general thought under it, we thereby treat this substance as the ground of an intuitive consequence, i.e., an effect and therefore as a real ground. In this way, we think the category <cause> as a substance insofar as it is the ground of an effect (an intuitive consequence). An example of a use of the category of <cause> is the determination of an outer intuition as a subject of repulsive force and so as the ground for the effect of causing other bodies to move away from it. In this exercise, we apply the hypothetical function to a manifold of outer intuitions thought under <substance>, thereby

treating the intuitions as the subject of a power that grounds the effect of moving bodies away from it, i.e., as the cause of the movement of other substances.

We see then how the category of <substance> is generated by an application of the categorical function to a manifold of intuition in general and how the category of <cause> is generated by an application of the hypothetical function to a manifold of intuition in general thought under the category of <substance>. I propose that, likewise, the category of <community> is generated by an application of the disjunctive function to a manifold of intuition general thought under the categories of <substance> and <cause>. Kant notes that the mere conjunction of the category of <substance> and <cause> does not yet constitute <community>: “out of the fact that I combine the concept of a cause and that of a substance, **influence**, i.e., how one substance can be the cause of something in another substance, is not immediately to be understood” (B111).²¹⁷ An example of such a combination of <substance> and <cause> is God’s causing the existence of other substances.²¹⁸ In this combination, God as a perfect substance causes the existence of other substances. However, this does not constitute God’s influencing or causing a determination in those substances. For the influence of a substance on another presupposes that the influenced substance is already doing something else, which is then altered and so influenced. In other words, influence is always the product of the joint exercise of at least two substances’ powers, whereas inter-substantial causal creation only involves the exercise of the creating substance’s powers. Influence thus involves mutual interaction or community between substances as distinct from mere causation between substances.

²¹⁷ "daraus, daß ich den Begriff einer Ursache und den einer Substanz beide verbinde, noch nicht so fort der **Einfluß**, d.i. wie eine Substanz Ursache von etwas in einer anderen Substanz werden könne, zu verstehen" (B111).

²¹⁸ I thank Houston Smit for pointing out this example to me.

In order to generate <community> from the combination of <substance> and <cause>, a special act of the understanding is required. As Eric Watkins notes, “the concept of mutual interaction requires considerations of reciprocity and symmetry that go beyond the notions involved in the first two categories under that heading” (2005, 285) Watkins also notes that the special act of the understanding is essential to thinking <community>. He “distinguishes it from a simple combination of the categories of substance and causality” (2011, 43) and rightly notes that what is crucial for community “is that the substances involved must *jointly* determine their states” (2011, 49). However, he does not spell out what the special act that generates community consists in which explains how the combination of substance and cause can yield a joint determination of states of substances. As we have seen, the disjunctive logical function unites acts that order representations so as to order them symmetrically or reciprocally. Thus, by employing the disjunctive function to unite the act of ordering a manifold of intuitions thought under <substance> and <cause>, we think <community> as substances in causal reciprocal opposition and community. Kant seems to confirm this last thought when he writes, “The understanding follows the same procedure when it represents the divided sphere of a concept as when it thinks of a thing as divisible, and just as in the first case the members of the division exclude each other and yet are connected in one sphere, so in the latter case the parts are represented as ones to which existence (as substances) pertains to each exclusively of the others, and which are yet connected in one whole” (B112).²¹⁹ That is, the understanding employs the same logical function (“the same procedure”) in uniting the act of ordering different judgments

²¹⁹ “Dasselbe Verfahren des Verstandes, wenn er sich die Sphäre eines eingeteilten Begriffs vorstellt, beobachtet er auch, wenn er ein Ding als teilbar denkt, und, wie die Glieder der Einteilung im ersteren einander ausschließen und doch in einer Sphäre verbunden sind, so stellt er sich die Teile des letzteren als solche, der Existenz (als Substanzen) jedem auch ausschließlich von den übrigen zukommt, doch als in einem Ganzen verbunden vor” (B112)

into a common conceptual sphere and in uniting the act of ordering substances with causal powers into a common dynamical community or whole.²²⁰ Employing the disjunctive logical function to unite the act of ordering substance and cause reciprocally connects substances (with causal powers), thus producing substances in mutual causal interaction, i.e., a community. The special act of the understanding or “*eigene Handlung*” that generates the third category of relation thus consists of a distinct exercise of the third corresponding (disjunctive) logical function that unites the act that produces the third category of relation from the combination of the first two and a manifold of intuition in general (and so the act of ordering the first two under the resulting third).²²¹ An example of a use of the category of <community> is the determination of an outer intuition as a composite body. In this exercise, we apply the disjunctive function to manifolds of outer intuition thought under the categories of <substance> and <cause>, thereby treating the intuitions of the parts of the body as substances in reciprocal causal relations that make up the dynamical whole that is the body, that is, as a community.

In this section, I have given a systematic account of the “*eigenen Handlungen*” in which each relational category is generated by a certain exercise of the corresponding relational function to order manifolds of intuition in general. I now develop this account for the final, modal categories.

²²⁰ Kant talks of a dynamical community determined by the disjunctive logical functions as itself being a whole of things, “*ein Ganz der Dinge*” (B112), which suggests that a community is itself a (composite) substance. The example he gives of a body whose parts reciprocally attract and resist each other further confirms this.

²²¹ As I discuss below, this interpretation of how the third category of relation is generated is further supported by Kant’s discussion of the same category in a letter to Schultz (*Br.* 10:367). Kant here explicitly notes that the determination of effects in one substance by another substance is something that does not derive from substance and causality alone, but rather something that belongs to the connection that is a condition for the possibility of things relating reciprocally in space and so of outer experience. This reciprocal connection between representations is effected by the application of the disjunctive logical function, which coordinates representations with one another into a whole.

4.5 Generating the Categories of Modality from the Functions of Modality

4.5.1 Forms and Functions of Modality

The fourth and final primary moment of the logical form of judgment is the modality of judgments. As we saw in previous chapters, the modal logical forms of judgment consist of ways of ordering discursive representations under communal ones such that these representations are ordered with respect to our intellect or higher capacity of cognition. For as Kant notes, “the modality of judgments is quite a special function of them, which is distinctive in that it contributes nothing to the content of judgment...but rather concerns only the value of the copula in relation to thinking in general” (A74/B100). These forms then concern the way in which the content of a judgment (constituted by quantitatively, qualitatively, and relationally determined discursive representations) is taken up by the intellect. We can think of the modal logical forms as forms of judgment that determine the (quantitatively, qualitatively, and relationally determined) judgments with respect to the understanding in general. As Wolff puts it then a judgment of the understanding is modally determined insofar as it expresses a determined degree of the “assimilation” [*Einverleibung*]²²² of the content of a judgment through the understanding in general (1995, 147-52). The different logical forms then correspond to the “values” that are accorded to the affirmation or denial of the propositional content of a judgment (Ibid., 173). Given that the modal forms determine quantitatively, qualitatively, and relationally determined discursive representations with respect to our higher capacity for cognition, we can think of the modal functions as unities of acts that order quantitatively, qualitatively, and relationally

²²² Kant uses talk of assimilation, “*Einverleibung*” and of this occurring gradually “*gradweise*” when discussing the progression across these functions in judgments, so that one can call these three functions of modality “*auch so viel Momente des Denkens überhaupt*” (A76/B101).

determined representations in general under communal ones in a way that determines the relationship between these representations and our higher capacity for cognition.

There are three elementary logical forms of modality corresponding to whether the content of a judgment is taken up as thinkable, as actually true (or false), or as necessarily true (or false): problematic, assertoric, and apodictic. Each of these forms leads to an elementary logical function of modality that makes it possible.

In a judgment determined by the problematic logical form, the thinker thinks the content of the judgment as merely thinkable, as a thought that is non-contradictory and so as determinable with respect to a truth-value. The thinker thereby thinks this content as merely determinable, i.e., as matter for thought). This judgment thereby treats the quantitatively qualitatively and relationally determined representations it orders according to the first modal concept of reflection: <matter>. The problematic function makes such judgments possible. This function unites representation-ordering acts by treating the quantitatively, qualitatively, and relationally determined representations it orders as determinable, ordering them into a content that is thinkable by the intellect (and so as merely determinable, i.e., as matter for thinking). As such, this function treats the combination or ordering of representations it orders as determinable, thinking it as a possible ordering of representations. An example²²³ of an exercise of the problematic function is any component judgment in a hypothetical or disjunctive judgment, e.g., ‘persisting evil is punished’ in the hypothetical judgment ‘If there exists a perfect justice, then persisting evil will be punished’ (A75/B100). In this judgment, the content of ‘there exists a

²²³ Kant gives the example ‘If God is just, then persisting evil are punished’ in the *Metaphysik Volckmann* with the provision that one thinks the judgment “in order to investigate whether it is true or false” that is, as determinable with respect to a truth-value. (*MV* 28:397).

perfect justice' is not determined as true or false, but rather is thought as merely thinkable and truth-apt. In thinking this content according to the problematic logical form, we do not actually subsume the concept of <perfect justice> and representations falling under it under the concept <existence>.²²⁴

In a judgment determined by the assertoric form, the thinker thinks the content of a judgment as having a determined truth-value (and so as a determination of thought). This judgment thereby treats the quantitatively qualitatively and relationally determined representations it orders according to the second modal concept of reflection: <form>. The assertoric function makes such judgments possible. This function treats the quantitatively, qualitatively, and relationally determined representations it orders as a determination, ordering them into a content that is determined in thought. As such, this function treats the combination or ordering of representations it orders as determined, thinking them as an actual ordering of representations. An example²²⁵ of an exercise of the assertoric function is any judgment thought as the minor premise of a hypothetical syllogism. Thus, 'there exists a perfect justice' thought as a minor premise in a hypothetical syllogism is an example of an assertoric judgment that is thought as actually true. In thinking this judgment, we determine the concept of <perfect justice> as actually falling under the concept <existence>, thinking the judgment as determinately true.

²²⁴ As I argue below, on my view, to treat some representations as falling under <existence> is essentially to treat them as having, as part of their content, a synthetic unity in intuition grounded in the exercise of the assertoric logical function to order a manifold of intuition in general thought under <possibility>. As such, this act of judgments consists of treating those representations as representations of an actualization of a possible combination of intuitions. In this judgment, we thereby treat the concept <perfect justice> (and representations of the single *Gegenstand* falling under it) as representations of actualization of a possible combination of intuitions (and thereby as having the power to punish any persisting evil).

²²⁵ Kant gives the example 'God is just, so persisting evil is punished' in the *Metaphysik Volckmann*, with the provision that one thinks the judgment as true (*MV* 28:397).

Like other functions, the assertoric function can be applied to other kinds of manifolds of (quantitatively, qualitatively, and relationally determined) representations.

In a judgment determined by the apodictic logical form, the thinker thinks the judgment as a necessarily true or false judgment. I propose that this judgment thereby treats the quantitatively, qualitatively, and relationally determined discursive representations according to both relational concepts of reflection: <matter> and <form>, albeit in different ways. For it determines the truth value of the content of a judgment (form) in a way that also thinks of it as determined by another form and therefore as determinable (matter). I follow Rosenkoetter in interpreting apodictic judgments as ones in which the subject constitutively takes herself to be normatively beholden to inferential laws connecting the content of the judgment to other representations serving as its ground (2013, 393). The apodictic function makes these judgments possible. This function unites representation-ordering acts by treating the representations it orders both as a determination of these representations as actually combined as well as determinable (and determined) as necessary because grounded in other representations. That is, this function treats the combination or ordering of representations it orders as a determination that is itself determinable (because determined by, i.e., grounded in, other representations) thinking it as an actual and necessary ordering of representations. An example of an exercise of the apodictic function is any judgment thought as the conclusion of a syllogism.²²⁶ Thus, ‘persisting evil will be punished’ thought as the conclusion of a syllogism whose major premise is ‘If there exists a perfect justice, then persisting evil will be punished’ and whose minor premise is ‘there exists a perfect justice’ is an example of an apodictic judgment. In asserting this

²²⁶ Kant gives the example ‘Persisting evil is necessarily punished’ in the *Metaphysik Volckmann* with the provision that one represents to oneself necessity (28:397).

conclusion, one thereby takes oneself to be normatively beholden to inferential laws that connect the judgment ‘persisting evil will be punished’ to the judgments ‘there exists a perfect justice’ and ‘if there exists a perfect justice, then persisting evil will be punished,’ which together serve as the ground of the apodictic judgment’s truth.

With this view of the modal logical functions and their relation to the modal concepts of reflection in hand. I now turn to spell out how the application of these functions to order manifolds of intuition in general generates the categories of modality under the last heading.

4.5.2 Generating the Categories of Modality

As noted above, the exercise of the problematic function treats the representations it orders according to <matter> and so as constituting a determinable, merely thinkable content. I propose then that the category of <possibility> is generated by an application of the problematic function to a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general. When we exercise this function to unite the act of ordering such a manifold of intuition in general under communal representations, we thereby order this manifold of intuition so as to determine it as a possible combination of intuitions. In this way, we think the category <possibility> as a thinkable, determinable combination or ordering of intuitions. An example of a use of the category of <possibility> is the determination of a body as a possible *Gegenstand*. In this exercise, we apply the problematic logical function to a manifold of outer intuitions, thereby treating the intuitions as a thinkable or determinable combination of outer intuitions, that is, a possibility.

The exercise of the assertoric logical function treats the representations it orders according to <form> and so as constituting the determining a content that is posited. I propose then that the category <existence> is generated by an application of the assertoric function to a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general. When we exercise this function to unite the act of ordering such a manifold of intuition in general thought under <possibility>, we thereby order this manifold of intuition so as to determine it as an actualization or determination of a possible combination of intuitions. In this way, we think the category <existence> as an actualization or determination of a possible combination of intuitions, an absolute positing of some possible aspect of a *Gegenstand*. An example of a use of the category of <existence> is the determination of a body as an actually existing *Gegenstand*. In this exercise, we apply the assertoric function to a manifold of outer intuitions thought under <possibility>, thereby treating the intuitions as a determined or actualized possible combination of outer intuitions.

We see then how the category of <possibility> is generated by an application of the problematic logical function to a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general and how the category of <existence> is generated by an application of the assertoric logical function to a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general thought under the category of <possibility>. I propose that, in a similar vein, the category of <necessity>, which Kant tells us is "nothing other than the existence that is given by possibility itself" (B111), is generated by an application of the apodictic logical function to a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general thought under the categories of <possibility> and <existence>.

The mere conjunction of <possibility> and <existence> does not yet constitute <necessity>. One can, after all, think of something as both possible and existent yet not necessary. As Daniel Schulting notes in his discussion of the categories of modality and their relation to apperception, there is a special act of the understanding that takes place in generating the category of <necessity> (2012, 121f). He ties this back to the claim we have seen Kant makes in the third *Critique* regarding synthetic unities: that a synthetic unity in general contains (1) a condition, (2) a conditioned, (3) the unification of the condition with its conditioned (*KU* 5:197n). Schulting rightly notes that in the synthetic unity of the categories of modality, existence is the conditioned and possibility the condition. He also rightly interprets the category of <necessity> as the unification of the condition (possibility) and the conditioned (existence), noting that it is not reducible to either one. Unfortunately, Schulting does not explain how this unification takes place. We can provide this explanation by noting that within the table of the moments of thinking there is already a capacity to unite the combination of representations such that some are determined as necessary by others: the apodictic function. Thus, by employing the apodictic logical function to unite the act of combining a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general thought under <possibility> and <existence>, one treats a combination of representations as an actual determination of representations that is itself determined (and thereby determinable) as necessary by other representations. In this way, we think the category of <necessity> as existence determined by possibility by exercising the apodictic function to order a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general thought under <possibility> and <existence>. The special act of the understanding or “*eigene Handlung*” that generates the third category of modality thus consists

of a distinct exercise of the third corresponding (apodictic) logical function that unites the act that of ordering a manifold of intuition in general thought under the first two categories of modality. An example of a use of the category of necessity is the determination of the gravitational effect of coming together between two bodies as necessarily grounded in their causal powers. In this exercise, we apply the apodictic logical function to a (quantitatively, qualitatively, and relationally determined) manifold of outer intuitions thought under <possibility> and <existence> as a determination of intuitions (and intuited substances and causes) that is determined (and therefore determinable) as necessary.

With this, I have finished presenting my systematic account of the “*eigenen Handlungen*” in which each of the twelve categories is generated. Before leaving this discussion, I should highlight some points concerning the content and generation of the categories and how this relates to their status as clear concepts. The category-generating acts I have focused on are applications of the logical functions to certain manifolds of intuition in general (some of which are thought under prior categories). As such, these are, strictly speaking, acts in which the *content* of the categories is generated. These acts consist of exercises of the logical functions that ground certain acts of pure synthesis in intuition. These are acts of pure synthesis of intuitions according to concepts.²²⁷ In these acts, the categories are (at first only obscurely)²²⁸ represented as rules that the understanding uses to determine itself and guide the pure productive imagination in performing these acts of synthesis. The content of the categories generated by the applications of the logical functions to manifolds of intuition thus consists of acts of pure synthesis that any

²²⁷ I discuss these acts of pure synthesis in more detail in the next chapter.

²²⁸ Kant follows the Leibnizian tradition he inherits in thinking of obscure representations as ones that do not allow one to reidentify that which is represented or to differentiate from others. By contrast, clear representations allow one to reidentify that which is represented and to differentiate it from others (Cf. *Anth.* 7:135-7). For Kant, the field of obscure representations is much larger than that of clear representations (Ibid.).

finite subject of thinking uses to think of *Gegenstände* in intuition in general. This content is generated by any subject of thinking in the course of ordinary life. Subsequently, a subject of thinking that engages in transcendental philosophy can perform acts of reflection on these pure synthetic acts to think the categories as clear, discursive marks (cf. A78/B103). Once the transcendental philosopher has formed the categories as clear, discursive marks, she can think of them independently of any application in sensibility.²²⁹ But the content of the categories (that is universally represented in the pure concepts of the understanding as clear concepts) is originally generated in and consists of acts of pure understanding/pure productive imagination that employ the logical functions to order manifolds of intuition in general.

In this section, I have not just presented my view of how the categories are generated. I have also given some considerations in favor of my interpretation. But now I turn to give a further, more systematic argument in favor of my interpretation. This argument focuses on how my interpretation deals with the third categories under each heading.

²²⁹ This is in keeping with Kant's general account of concept formation (Cf. *JL* 9:93-4). As Smit notes, this account holds that the logical acts of comparison, reflection, and abstraction make a singular mark discursive or predicable of more than one *Gegenstand* (Smit 2000, 256-7). As I noted in chapters two and three, I follow Smit in interpreting the singularity of intuitions as essentially related to their immediacy. For their immediacy consists in their relating to their *Gegenstände* through intuitive marks, i.e., through singular instances of properties of those *Gegenstände*, as they are represented in (and so make up the contents of) our intuitions (2000, 260-6). The mediacy and generality of concepts are likewise essentially related. For the mediacy of concepts consists in their relating to *Gegenstände* through discursive marks, i.e., through general properties of *Gegenstände* as they are represented in (and so make up the contents of) our concepts. On this view, the distinction between singular and discursive marks is one between two ways the same partial representation of a *Gegenstand* is predicable of a *Gegenstand* (2000, 256).

4.6 A More Systematic Argument in Favor

A further consideration in favor of this interpretation of the categories and the way they are generated as a whole is that it meets the constraints on interpretations of the generation of the third categories generally, which I have spelled out in more detail in (2018):²³⁰

(C1): the third category under each heading is generated by combining the first and second categories under the same heading by means of a special act of the understanding.²³¹

(C2): The third category under each heading contains the derivation of the second category from the first, i.e., it is the concept of something such that it is a condition of its falling under the first category that it also falls under the second. This is the universal condition of something's falling under the third category of a heading, as specified by this category itself.

²³⁰ I should note that, since the publication of this paper, my view has evolved in certain important respects. In particular, I have backed away from using talk of the “derivation” of the categories in thinking of how they are generated. This is in order not to give the mistaken impression that these categories are generated by the transcendental philosopher in the course of going through the project of the critique of pure reason. Instead, these acts are generated as part of the ordinary use of common understanding. Of course, the transcendental philosopher can grasp this intellectual origin of the categories for the sake of giving a deduction of them, but it is important to keep these two (the generation of the categories by common understanding and the deduction of the categories by the transcendental philosopher) separate. Moreover, I now think that the third categories are generated not simply in acts that combine the first two categories but in acts that combine these two categories and a manifold of intuition in general (that is thought under the first two categories). In (2018), I also interpreted the specialness of the “special act” that generates the third categories as these acts being unique *sui generis* acts. I no longer think that we need to hold that category generating acts in general are *sui generis*. In particular, as I noted in chapter one, another interpretive possibility is that they are exercises of the real use of the reflective power of judgment. This real use takes as input manifolds of certain representations (intuitions in general, some of which are thought under other categories), and yields as out put the generation of the content of the categories is acts of pure synthesis according to them. Moreover, I now think that insofar as the second category contains the first and is generated by using the second function to order a manifold that contains the first, the specialness of the “special act” consists not of their being unique but rather off their being like the other particular category generating acts.

²³¹ As spelled out in chapter one, this constraint comes from Kant's discussion of the third categories and how they constitute ancestral fundamental concepts of the understanding in the second edition of the *Transcendental Analytic* (B110f).

This second constraint is derived from Kant's discussion of the relationship between the categories in a letter to Schultz dated 18th February 1784 (*Br.* 10:366-8). Here Kant writes, "The third category namely arises indeed certainly through the connection of the first and the second, but not merely through taking them together [*Zusammennehmung*] but rather such a connection, whose possibility itself makes up a concept and this concept is a specific category" (*Br.* 10:366). In this passage, Kant explicitly claims that generating the third category requires something over and above the conjunction of the first two categories (*viz.*, a combination whose very possibility makes up a particular category). And he notes that this fact explains why the third is not always applicable where the first two are.²³² Kant then discusses what else the third category contains: "but also there, where the third category is applicable, it always contains something more besides the first and the second taken together, namely the derivation [*Ableitung*] of the second from the first, (which does not always hold[*]*)²³³ e.g., thus necessity is nothing other than existence insofar as it can be inferred from [*geschlossen*], community is the reciprocal causality of substances in regard their determinations." (*Br.* 10:367). Kant here explicitly claims that each third category

²³² Kant here discusses how future years are a subject matter to which the first two categories of quantity are applicable though the third is not. Kant notes that although the concept of a year and of many years of future time are real concepts, one cannot think the totality of future years in a collective unity of eternity: "z.B. ein Jahr – viel Jahre der künftigen Zeit – sind reale Begriffe, aber das All der künftigen Jahre mithin collective Einheit einer künftigen Ewigkeit, die als gantz (gleichsam absolvirt) gedacht wird, will sich nicht denken lassen" (*Br.* 10:366). As Houston Smit has helpfully pointed out to me, God is an example of a subject matter to which the first and second categories of relation are applicable though the third is not. That is, God is a substance that enters into causal relations (*viz.*, the creation of other substances). However, God does not stand in community with other substances since these do not determine any effects in God.

²³³ "aber auch da, wo die dritte categorie anwendbar ist, enthält sie immer noch etwas mehr, als die erste und zweyte für sich und zusammen genommen, nämlich die Ableitung der zweyten aus der ersten, (welche nicht immer angeht[*]*) e.g. so ist die Nothwendigkeit nichts anders, als das Daseyn, so fern es aus der Möglichkeit geschlossen werden kan, die Gemeinschaft ist die wechselseitige Caussalität der Substantzen in Ansehung ihrer Bestimmungen" (*Br.* 10:367). Kant does not close this parenthesis in this letter. However, I suggest that we interpret the parenthesis as closing after "angeht." Such that what is inside the parenthesis is an aside indicating that the derivation of the second category from the first is not always applicable. This makes sense given that Kant notes the third category contains precisely such a derivation and is itself not always applicable. Moreover, closing the parenthesis before Kant's listing the examples of necessity and community allows us to interpret both of these third categories as examples of the way in which the third categories contain the derivation of the second from the first.

not only contains the first two corresponding categories as parts but also connects these categories such that the second is derived from the first. In other words, each third category is the concept of something that falls under the first category but only on the condition that it falls under the second category. Because the content of the third category is such that if it falls under the first category then it falls under the second, the third category contains the derivation of the second from the first.

The examples Kant gives in these passages seem to bear this out. He notes that necessity is nothing other than existence that can be inferred from possibility (B111). In other words, something is necessary if its existence follows from its possibility, i.e., is such that if it is possible, then it exists. In this way, the category of <necessity> can be seen to contain the derivation of <existence> from <possibility>. Similarly, Kant claims that community is the reciprocal causality of substances with regard to their determinations. In other words, a community is such that if it is a substance, then it is composed of interacting causes that determine as their effects the substance's determinations. In this way, the category of <community> can be seen to contain the derivation of <cause> from <substance>.

Together, these two constraints on the generation of the categories and content of the third categories (drawn from passages in which Kant discusses the third categories in detail) reveal what viable interpretations of the generation of the third categories must look like. They must consist of (a) a special act of the understanding that combines the first and second categories under the third such that (b) this third contains the derivation of the second from the first.

My proposed interpretation of the special act that generates the third categories is an application of the corresponding third logical functions that unites the ordering of a manifold of

intuition in general thought under the first two categories. I now argue that my interpretation of the generation of each of the third categories meets these constraints.

Let us begin with the third category of quantity, <totality>. On my interpretation, the category of <totality> is generated by an application of the singular function to order a manifold of intuition in general thought under <unity> and <plurality>, thereby thinking of a totality as a single plurality (of unities). This application of the singular functions thereby combines the categories of <unity> and <plurality> (together with a manifold of intuition in general), constituting a special act of the understanding in and through which we generate the third category of quantity: <totality>, thereby meeting (C1). Moreover, according to this account, our concept of totality is the concept of plurality made into a single unity. As such, <totality> is the concept of something that falls under the category of <unity> (as it is itself a unit of being, a unity), but it does so only on the condition that it falls under the category of <plurality> (since it is a unity essentially composed of pluralities). In other words, a totality is such that if it is a unity, then it is composed of pluralities. Thus, the category of <totality> on my interpretation contains the derivation of plurality from unity, thereby meeting (C2).

My account of the generation of the third category of quality, <limitation> is similarly able to meet these constraints. On my interpretation, the category of <limitation> is generated by an application of the infinite function to order a (quantitatively determined) manifold of intuition in general thought under <reality> and <negation>, thereby thinking of a limitation as a quality consisting of an opposed reality and negation. This application of the infinite function thereby combines the categories of <reality> and <negation> (together with a manifold of intuition in general), constituting a special act of the understanding in and through which we generated the

third category of quality: <limitation>, thereby meeting (C1). Moreover, according to this account, our concept of limitation is the concept of an essentially opposed reality and negation. As such, <limitation> is the concept of something that falls under the category of <reality> (as it partially consists of a positive reality), but it does so only on the condition that it falls under the category of <negation> (since it is a reality that also essentially consists of a negation that opposes the former positive reality). In other words, a limitation is such that if it is a reality, then it is one that essentially opposes a negation, thereby meeting (C2).

Turning to the generation of the third category of relation, <community>, my interpretation holds that the category of <community> is generated by an application of the disjunctive function to a (quantitatively and qualitatively determined) manifold of intuition in general thought under <substance> and <cause>, thereby thinking of a community as substances in reciprocal causal interaction. This application of the disjunctive function thereby combines the categories of <substance> and <cause> (together with a certain manifold of intuition in general), constituting a special act of the understanding in and through which we generate the third category of relation: <community>, thereby meeting (C1). Additionally, according to my interpretation, our concept of community is the concept of substances in reciprocal causal interaction. As such, <community> is the concept of something that falls under the category of <substance> (as it is itself a composite substance) but only under the condition that it falls under the category of <cause> (as it is a substance essentially composed of causes in interaction). In other words, a community is such that if it is a substance, then it is essentially composed of causes, thereby meeting (C2).

Finally, my account of the third category of modality, <necessity> is also able to meet these constraints. According to my interpretation, the category of <necessity> is generated by an application of the apodictic logical function to a (quantitatively, qualitatively, and relationally determined) manifold of intuition in general thought under <possibility> and <existence>. In exercising the apodictic function in this way, we think of necessity as existence given or determined by possibility. This application of the apodictic function thereby combines the categories of <possibility> and <existence> (together with a certain manifold of intuition in general), constituting a special act of the understanding in and through which we generate the third category of modality: <necessity>, thereby meeting (C1). Moreover, my interpretation holds that our concept of necessity is the concept of existence determined by possibility. As such, <necessity> is the concept of something that falls under the category of <possibility> (as something necessary is also possible) but only under the condition that it falls under the category of <existence> (since its existence follows from its possibility). In other words, a necessity (something necessary) is such that if it is a possibility (if it is possible), then it is an existence (then it exists), thereby meeting (C2).

If what I have argued in this section is correct, then my interpretation of the generation of each of the third categories can meet the requirements that we can draw from texts in which Kant discusses these categories in detail. As such, I contend that my interpretation of the original acquisition of the categories is especially well-positioned to make sense of how the third categories under each heading are acquired.

4.7 Conclusion

In this chapter, I have given a systematic account of the “*eigenen Handlungen*” or unique actions in which each category is generated or originally acquired. For each heading, the first category is generated by an application of the corresponding first function to order a manifold of intuition in general. The second category is in turn generated by an application of the corresponding second function to order a manifold of intuition in general thought under the first category. Finally, the third category is generated by an application of the third function to order a manifold of intuition in general thought under the first and second categories. In giving this account, I have spelled out the rich interrelations of different architectonic aspects of his philosophy: the logical forms of judgment, the logical functions of the understanding, the concepts of reflection, and the pure concepts of the understanding. In the next chapter, I will bring this view of the original acquisition of the categories together with the text of the metaphysical deduction to argue that my interpretation fares better than others according to the criteria set out in chapter one.

CHAPTER 5 – EVALUATING INTERPRETATIONS OF THE METAPHYSICAL DEDUCTION

5.1 Introduction

In this chapter, I employ the interpretation of the logical forms of judgment, logical functions, and the origin of the categories developed across chapters two, three, and four to spell out and argue for a reading of the argument of the metaphysical deduction and of the third section of the *Leitfaden* chapter. I argue that my reading is preferable to others in the extant literature with respect to the standards and desiderata set out in chapter one. To review, these readings are:

(1) a reductive reading that identifies the key “functions” in A79/B104f with acts of judgment

(2) a categorial reading that identifies them with the categories

(3) a teleological reading that identifies them with logical functions as guided by logical forms

(4) a categorial reading that identifies them with a genus of which judgment and synthesis are species

(5) my preferred common ground reading that identifies them with an activity of the understanding that partially grounds both acts of judgment and synthesis

The standards that any adequate interpretation of the metaphysical deduction must meet are:

(1) make sense of the text of the metaphysical deduction proper, i.e., the *Leitfaden* passage at A79/B104f.

(2) be consistent with other texts that discuss what the metaphysical deduction accomplishes²³⁴

(3) give an appropriate role to the metaphysical deduction within the project of the Transcendental Analytic as a whole.

Additionally, an interpretation of the metaphysical deduction should ideally:

(A) clearly explain the role the logical functions, logical forms, and categories play in the argument,

(B) show this argument to be insightful,

(C) illuminate our understanding of other aspects of Kant's philosophy

(D) unify our understanding of different key activities of our higher capacity for cognition in general.

In what follows, I will argue that my interpretation meets all these standards and desiderata. I focus on the standards first and then move on to the desiderata.

5.2 Meeting The Desiderata

5.2.1 The Text of the *Leitfaden* Chapter

In this section, I apply my interpretation to give a reading of the text where the metaphysical deduction takes place. I compare my interpretation to the other alternatives in the taxonomy set out above, focusing on what I take to be the most attractive alternative, viz., Till Hoepfner's generic reading. I begin by discussing the beginning of section 10, the third section

²³⁴ These texts include the one in the transcendental deduction when he refers to the metaphysical deduction (B159) and those in the Transcendental Dialectic in which Kant discusses what he accomplished in the Transcendental Analytic (A299f/B355f and A321/B378).

of the *Leitfaden* chapter: “On the pure concepts of the understanding or categories.” In order to contextualize the key *Leitfaden* passage, I first give my interpretation of the immediate context preceding this passage.

Kant begins by reminding the reader of the contrast between general and transcendental logic. He notes that general logic abstracts from all content of cognition, expecting that representations may be given from elsewhere. By contrast, “transcendental logic has a manifold of sensibility that lies before it a priori, which the transcendental aesthetic has offered it [transcendental logic] in order to give material [*Stoff*] for the pure concepts of the understanding, without which it [transcendental logic] would be without any content, thus completely empty” (A76f/B102).²³⁵ Kant then proceeds to note that space and time, although they contain a manifold of pure a priori intuition, nevertheless “belong to the conditions of the receptivity of our mind under which alone it can receive representations from *Gegenstände*” adding that because they belong to such conditions for receiving intuitive representations from *Gegenstände*, they [space and time] must always affect the concepts of the same [*Gegenstände*]” (A77/B102).²³⁶ It is only once Kant has given this context reminding us of the Transcendental Aesthetic’s contributions that he turns his focus to our higher, spontaneous capacity of cognition. Here Kant writes, “However, the spontaneity of our thought requires that this manifold first be gone through, taken up, and combined in a certain way, in order to make a cognition out of it

²³⁵ “Dagegen hat die transzendente Logik ein Mannigfaltiges der Sinnlichkeit a priori vor sich liegen, welches die transzendente Ästhetik ihr darbietet, um zu den reinen Verstandesbegriffen einen Stoff zu geben, ohne den sie ohne allen Inhalt mithin völlig leer sein würde” (A76f/B102).

²³⁶ “Raum und Zeit enthalten nun ein Mannigfaltiges der reinen Anschauung a priori, gehören aber gleichwohl zu den Bedingungen der Receptivität unseres Gemüts, unter denen es allen Vorstellungen von Gegenständen empfangen kann, die mithin auch den Begriffen derselben jederzeit affizieren müssen” (A77/B102).

[this manifold]” (A77/B102).²³⁷ Kant ends the introductory paragraph by noting that he calls this action of going through, taking up, and combining a certain way “synthesis” (A77/B102). That is, Kant ends this paragraph by associating the action of synthesis (which first makes a cognition out of a manifold of intuition) with the spontaneity of our understanding. I propose to read this synthesis as a species of pure synthesis that is ultimately grounded on the activity of this understanding (an exercise of the logical functions).

My interpretation of the synthesis at issue at the end of the first paragraph as a particular species of synthesis is supported by Kant’s seemingly backing up at the beginning of the next paragraph and discussing “synthesis in the most general sense [*in der allgemeinsten Bedeutung*]” (A77/B103). He characterizes this most general sense of synthesis as “the action of putting together several representations and grasping their manifoldness in one cognition²³⁸ [*die Handlung, verschiedene Vorstellungen zueinander hinzuzutun, und ihre Mannigfaltigkeit in einer Erkenntnis zu begreifen*]” (A77/B103). Kant then goes on to note that such a (most general) synthesis is pure if the manifold is given not empirically but rather a priori (as is that in space and time). From here, Kant goes on to contrast the analysis and the synthesis of representations and their relationships to the content of our representations. He notes, “Prior to all analysis of our representations, these [space and time] must first be given, and no concepts can arise analytically as far as their content” (A77/B103).²³⁹ In contrast to analysis requiring representations to be given and its inability to generate content, Kant notes that “[t]he synthesis of a manifold (be it

²³⁷ “Allein die Spontaneität unseres Denkens erfordert es, daß dieses Mannigfaltig zuerst auf gewisse Weise durchgegangen, aufgenommen, und verbunden werde, um darauf eine Erkenntnis zu machen” (A77/B102).

²³⁸ I read this as cognition in the potential sense, a representation that can be put to use in an act of cognition. This is to be distinguished from cognition in the actual sense or “*eigentlicher Bedeutung*” (A78/B103) Kant mentions below. Actual cognition is when a representation is actually put to use in an act of cognition by the subject.

²³⁹ “Vor aller unserer Vorstellungen müssen diese zuvor gegeben sein, und es können keine Begriffe dem Inhalte nach analytisch entspringen” (A77/B103).

given empirically or a priori) first brings a cognition²⁴⁰ forth” (A77/B103). Kant admits that this synthesis that brings cognition forth “indeed may at first still be raw and confused, and thus in need of analysis” (Ibid.).²⁴¹ However, he emphasizes, “yet synthesis alone is that, which actually collects the elements of cognition²⁴² and unites them into a certain content” (Ibid.).²⁴³ On the basis of synthesis being the act which first generates the content for cognition, Kant concludes that synthesis “is therefore the first thing we have to attend to if we want to judge about the first origin of our cognition” (A78/B103).²⁴⁴ It is with this emphasis on the contribution of the act of synthesis to the content of cognition that Kant closes this second paragraph.

The third paragraph begins by once again stepping back and discussing synthesis in general, noting that it is “the mere effect of the imagination, of a blind though indispensable function of the soul, without which we would have no cognition at all, but of which we are seldom even just once conscious” (A78/B103).²⁴⁵ After highlighting that synthesis in general is effected by the imagination, Kant finally turns to the proper focus of this part of the *Critique*: the understanding. He does so by noting, “Yet to bring this synthesis to concepts, that that is a function that pertains to the understanding and through which it [the understanding] first provides cognition in the

²⁴⁰ I also read this as cognition in the merely potential sense of its being a representation that one can put to use in an act of cognition.

²⁴¹ *Die Synthesis eines Mannigfaltigen aber (es sei empirisch oder a priori gegeben), bringt zuerst eine Erkenntnis hervor, die zwar anfänglich noch roh und verworren sein kann, und also der Analysis bedarf*” (A77/B103).

²⁴² I also think we should read this sense of cognition in the potential rather than actual sense. Thus, the act of synthesis is what actually collects elements in such a way as to generate representations that can be put to use in acts of cognition.

²⁴³ *“Allein die Synthesis ist doch dasjenige, was eigentlich die Elemente zu Erkenntnissen sammelt, und zu einem gewissen Inhalte vereinigt“* (A77/B103).

²⁴⁴ *“Sie [Synthesis] ist also das erste, worauf wir Acht zu geben haben, wenn wir über den ersten Ursprung unserer Erkenntnis urteilen wollen”* (A77/B103).

²⁴⁵ *“Die Synthesis überhaupt ist, wie wir künftig sehen werden, die bloße Wirkung der Einbildungskraft, einer blinden obgleich unentbehrlichen Funktion der Seele, ohne die wir überall keine Erkenntnis haben würden, der wir uns der selten nur einmal bewußt sind”* (A78/B103).

actual sense”²⁴⁶ (A78/B103).²⁴⁷ It is here then that Kant begins to focus on the understanding, its concepts, and its relationship to synthesis, which will be the focus of the coming paragraphs.

The fourth paragraph then begins by discussing a species of synthesis that Kant associates strongly with the understanding and with the categories. This species of synthesis is “**pure synthesis,**” which Kant notes when “**generally represented,** yields the pure concept of the understanding” (A78/B104). That is, Kant here claims that the pure concepts of the understanding are general or universal representations of acts of certain acts of pure synthesis. Kant then proceeds to explain the species of synthesis that is his focus in this paragraph and that is generally represented in the categories. He writes, “I understand however by this synthesis that which rests on a ground of synthetic unity a priori” (A78/B104). Kant goes on to explain what it means for this pure synthesis (that the categories generally represent) to rest on a ground of synthetic unity a priori by giving the example of counting: “thus our counting (as is especially noticeable in larger numbers)²⁴⁸ is a synthesis *according to concepts* [*nach Begriffen*],²⁴⁹ since it

²⁴⁶ Kant’s noting that it is by means of the bringing of a synthesis to concepts that the understanding first provides cognition in the actual sense is evidence for reading the cognition provided by the synthesis of the mere imagination (without bringing it to concepts) as bringing forth cognition in the merely potential rather than actual sense.

²⁴⁷ “*Allein, diese Synthesis auf Begriffe zu bringen, das ist eine Funktion, die dem Verstande zukommt, und wodurch er uns allererst die Erkenntnis in eigentlicher Bedeutung verschafft*” (A78/B103).

²⁴⁸ The implication of this qualification is that even with smaller numbers, the synthesis of counting is one that takes place according to concepts, which provide the communal ground of unity to the act of synthesis.

²⁴⁹ I follow Houston Smit in holding that there is an important distinction to be made between a synthesis according to [*nach*] concepts and a synthesis merely in accordance [*gemäß*] with concepts (ms a). In a synthesis according to concepts, the concepts are represented as rules (albeit perhaps obscurely) that the understanding uses to determine itself and pure productive imagination to perform the act of synthesis. By contrast, a synthesis merely in accordance with concepts is one that is not at all guided by concepts but, being in conformity with them, can be brought under concepts. An example of a synthesis *gemäß* is the transcendental figurative synthesis of the understanding Kant discusses in section 24 of the B-deduction. This is parallel to the way Kant uses *nach* in the practical philosophy to signal conscious conformity to a principle. For example, he notes that rational beings, unlike the rest of nature act *nach* representations of laws (G 4:412).

takes place according to a communal ground of unity (e.g., the decad). Under this concept thus the unity of the synthesis of the manifold becomes necessary” (A78/B104).²⁵⁰

To glean what Kant is after by using this example, it is helpful to highlight here that for Kant the concept of number is a species falling under totality, which is itself a category. That is, when we count, we employ the concept of a number (of a species of totality) to carry out the synthesis of a manifold of intuition according to this concept (and category) so that we think of the manifold as constituting a whole number. In carrying out this synthesis according to the concept of number, our understanding actively represents a concept as a rule and applies it such that it determines itself to carry out this activity of synthesis. It is in virtue of taking place according to this concept, i.e., it is because this act of synthesis is grounded in the representation and application of a concept as a rule that determines it to perform acts of synthesis, that this synthesis is represented as and so “becomes” necessary (A78/B104). Kant’s discussion of the pure synthesis according to concepts that the categories generally represent thus implies that these pure acts of synthesis are joints act of the pure understanding and the pure productive imagination. In performing these acts, the pure understanding represents concepts (perhaps only obscurely)²⁵¹ and applies them as rules to guide the pure productive imagination in acts of synthesis that combine manifolds of intuition according to them. This view of the categories as

²⁵⁰ “so ist unser Zählen (vornehmlich ist es in größeren Zahlen merklicher) eine Synthesis nach Begriffen, weil sie nach einem gemeinschaftlichen Grunde der Einheit geschieht (z.E. der Dekadik). Unter diesem Begriffe wird also die Einheit in der Synthesis des Mannigfaltigen notwendig” (A78/B104). I should note that I do not think we should interpret the act of bringing synthesis to concepts in A78/B103 and the act of counting (or generally of employing the categories to perform an act of synthesis according to concepts in A78/B104) as the same. In particular, there is reason to think that the former requires us to have clear, universal representations of concepts, whereas I do not think that the latter does.

²⁵¹ As I noted in chapter 4, Kant follows the Leibnizian tradition he inherits in thinking of obscure representations as ones that do not allow one to reidentify that which is represented or to differentiate it from others. By contrast, clear representations allow one to reidentify that which is represented and to differentiate it from others (Cf. *Anth.* 7:135-7).

joint acts of pure understanding/pure productive imagination is supported by Kant's discussion of the pure concepts of the understanding in the next paragraph in the section.

This paragraph begins once again by stepping back and highlighting a difference between general and transcendental logic. Kant notes that in transcendental logic several representations are brought under a concept analytically, whereas transcendental logic teaches how to bring not representations but “the **pure synthesis** of representations to concepts” (A78/B104). After this reminder then Kant proceeds to enumerate three things that are required for the cognition of all *Gegenstände* a priori. The first thing is “the manifold of pure intuition” (A78f/B104), the second is “the synthesis of this manifold through the imagination” but it “does not yet give cognition [*gibt aber noch keine Erkenntniß*]” (A79/B104).²⁵² The third thing that is necessary for cognition of a *Gegenstand* coming before us is “the concepts, which give this pure synthesis **unity** and which consist solely in the representations of this necessary synthetic unity,” concepts which “depend on the understanding” (A79/B104).²⁵³ This last point seems to be a fleshing out of Kant's point a couple of paragraphs above that cognition “in the actual sense” (A78/B104) is first provided by bringing the synthesis of the imagination to concepts, which pertains to the understanding. Here Kant more specifically claims that cognition of *Gegenstände* coming before us (i.e., *Gegenstände* of experience) in particular is only reached once we have the concepts that give this pure synthesis unity. These concepts are the pure concepts of the understanding or categories, which in this paragraph Kant characterizes explicitly as concepts that “consist solely

²⁵² “Das erste, was uns zum Behuf der Erkenntnis aller Gegenstände a priori gegeben sein muß, ist das Mannigfaltige der reinen Anschauung, die Synthesis dieses Mannigfaltigen durch die Einbildungskraft ist das zweite, gibt aber noch keine Erkenntnis” (A78f/B104).

²⁵³ Die Begriffe, welche, dieser reinen Synthesis Einheit geben, und lediglich in der Vorstellung dieser notwendigen synthetischen Einheit bestehen, tun das dritte zum Erkenntnis eines vorkommenden Gegenstandes, und beruhen auf dem Verstande.

in the representations of [the] necessary synthetic unity” of acts of pure synthesis according to concepts.

It is because these concepts consist of the representation of the necessary synthetic unity of such acts of pure synthesis and because these concepts ground these acts by giving them a unity that “under these concepts” the synthesis of manifolds of intuition “becomes necessary” (A78/B104). Because when we carry out acts of synthesis according to these concepts, we represent the synthesis of the manifold of intuition in this way as exhibiting a necessary unity (in virtue of taking place according to, hence being grounded on, concepts). As I noted in chapter four, the contents of the categories constitute joints acts of pure thinking/pure synthesis according to concepts, and these pure joint acts bring about representations of necessary synthetic unities in manifolds of intuition in general. These synthetic unities can then be reflected so as to be universally or generally represented (“*allgemein vorgestellt*”) in clear, universal representations, i.e., concepts, that can then be thought independent of any application in sensibility. With this interpretation of the content of the categories and of the beginning of section 10 of the Transcendental Analytic, we can now turn to the paragraph that follows: the *Leitfaden* passage proper in order to give an interpretation of the argument of the metaphysical deduction as it takes place in the text.

5.2.1.1 *The Leitfaden Passage*

The *Leitfaden* passage reads as follows:

[1] The same function, which gives unity to several representations in a judgment also gives unity to the bare synthesis of several representations in an intuition, **which**, expressed generally, is called the pure concept of the understanding. [2] The same understanding, therefore, and indeed through the same actions through which it produced in concepts by means of the analytic unity the logical forms of a judgment, also brings by means of the

synthetic unity of the manifold of intuition in general a transcendental content into its representations, on account of which **they** are called pure concepts of the understanding that apply to objects *a priori*.²⁵⁴

We can note, following Till Hoepfner, that both sentences in this passage have a certain grammatical ambiguity in their pronouns: ‘they [*welche*]’ in the first sentence and ‘*sie* [they]’ in the second sentence (ms a, 8). The ‘*welche*’ can refer to (a) ‘the same function [*dieselbe Funktion*]’ or (b) to ‘unity in an intuition [*Einheit in einer Anschauung*]’ and ‘*sie*’ can refer to (a) ‘the same actions [*dieselben Handlungen*]’ or (b) to representations with a ‘transcendental content.’ Disambiguating the referent of these pronouns is a key first step to interpreting this passage. Hoepfner claims that it is syntactically more plausible to refer these pronouns to ‘unity in an intuition’ and ‘transcendental content’ of representations, and his generic reading disambiguates the referents in this way. But I shall argue that we should read these as instead referring to ‘the same function’ and to ‘the same actions.’

One worry I have with reading ‘*sie*’ as referring to ‘transcendental content’ of representations is that, grammatically, it strictly speaking cannot refer to ‘transcendental content,’ for it is a plural or feminine pronoun and so cannot refer to a masculine noun like content (*Inhalt*). Thus, strictly speaking, ‘*sie*’ cannot refer to ‘transcendental content’ of representations but only to ‘the representations’ in which a transcendental content is brought (by means of the synthetic unity of the manifold of intuition in general). On this way of disambiguating the referent of ‘*sie*,’ it is the representations in which a transcendental content is brought forth that are called pure concepts of the understanding, rather than the contents. It would therefore not be the transcendental content

²⁵⁴ [1] *Dieselbe Funktion, welche den verschiedenen Vorstellungen in einem Urteile Einheit gibt, die gibt auch der bloßen Synthesis verschiedener Vorstellungen in einer Anschauung Einheit, welche, allgemein ausgedrückt, der reine Verstandesbegriff heißt.* [2] *Derselbe Verstand also, und zwar durch eben dieselben Handlungen, wodurch er in Begriffen, vermittelt der analytischen Einheit, die logische Form eines Urteils zu Stande brachte, bringt auch, vermittelt der synthetischen Einheit des Mannigfaltigen in der Anschauung überhaupt, in seine Vorstellungen einen transzendentalen Inhalt, weswegen sie reine Verstandesbegriffe heißen, die a priori auf Objekte gehen.*

(that which is brought by and results from the representation of) but rather the representations in which this content is brought that would be called pure concepts of the understanding. This may seem a small point, but it matters insofar as what Kant calls the pure concept would not be the result (as Hoepfner holds) but that in which the result is realized. The result is that disambiguating the referent of “*sie*” in this way leads to a somewhat awkward sentence. Moreover, if we disambiguate the referent of the previous ambiguous pronoun (‘*welche*’) as ‘unity in an intuition’ as Hoepfner suggests (ms a, 11), we get a somewhat awkward reading of the whole passage. On this disambiguation of the two pronouns, Kant calls in the first sentence the ‘unity in an intuition’ (that functions give to intuitions) a pure concept of the understanding. However, in the second sentence, he calls the *representations* (in which the transcendental content is brought) the pure concepts of the understanding. That is, in the second sentence it is not the *unity* in the intuition (i.e., not the unity in an intuition resulting from the function) but rather the representations (i.e., intuitions) in which the unity, i.e., transcendental content, is realized. This disambiguation therefore introduces an asymmetry in what is called a pure concept of the understanding in the first and second sentence of the passage.

I think this asymmetry counts against this disambiguation given the grammatical structure of the two sentences. For both ambiguous pronouns have as their verb ‘to be called [*heißen*],’ and the same verb-phrase ‘to be called pure concepts of the understanding [*reine Verstandesbegriff heißen*].’ They only differ in that the first pronoun’s verb is singular, whereas the second pronoun’s verb is plural. Given this symmetry in the verb phrase for the sentences, there is

reason to think that the ambiguities should be resolved in a way that preserves this symmetry.²⁵⁵

That is, there is reason to think that Kant means to refer to the same thing in both pronouns (albeit first as a singular and then as plural), for in both sentences, he is discussing something that is rightly called ‘pure concept of the understanding.’ However, on Hoepfner’s proposed way of disambiguating the pronouns, we fail to preserve this symmetry.

To my mind, this symmetry instead speaks in favor of disambiguating the referent of the first pronoun with ‘*dieselbe Funktion*’ and that of the second with ‘*dieselbe Handlungen*.’ On this disambiguation, the second sentence further articulates what the first sentence claims, i.e., that the understanding’s functions bring unity both to (a) judgments (by means of the analytic unity of concepts), realizing their logical form, and to (b) intuitions (by means of the synthetic unity of the manifold of intuitions), realizing a transcendental content in intuition. On this way of reading the passage, the transcendental content in intuitions realized by functions consists in acts of pure synthesis (according to concepts) of the manifold of intuition in general. These acts of the understanding produce in intuition singular immediate representations of *Gegenstände* as such. When generally represented, these acts constitute general mediate representations, i.e., concepts, of pure acts of synthesis in intuitions and so concepts of *Gegenstände* as such.²⁵⁶ Therefore, the functions of the understanding, insofar as they are employed to unify intuitions by bringing forth

²⁵⁵ Hoepfner seems to agree that the sentences should have some symmetry, as he holds that the parallel structure of the sentences suggests that the second is a more explicit elucidation of the first. (ms a, 6). As I note below, Hoepfner and I agree on this last point. Even though we disagree about what the key claim Kant is making in this passage.

²⁵⁶ As I note in previous chapters, I follow Smit’s interpretation of the relation between singular and general marks (2000). On this view, the distinction between singular and discursive marks is one between two ways the same partial representation of a *Gegenstand* is predicable of a *Gegenstand* (2000, 256). The content of singular marks is predicable of a single *Gegenstand* in virtue of being contained in the forms of sensibility. These same marks, i.e., this same content, can also be represented in and take the form of concepts (and thus be predicable of more than one *Gegenstand*) by being subjected to the “logical acts” of comparison, reflection, and abstraction through which we *make* representations general (2000, 256f).

synthetic unities in them (and are generally represented), thereby earn the right to be called pure concepts of the understanding, by means of which we are able to think of *Gegenstände* as such.

This way of disambiguating the pronouns fits nicely with the common ground reading I argue for. This reading holds the categories and the logical forms of judgment both originate in the logical functions of the understanding (when applied to different kinds of manifolds of representations). Moreover, I think this way of disambiguating the pronouns in the passage can be defended from an interesting argument that Hoepfner gives against it. Hoepfner argues that we should not interpret these pronouns as referring to ‘the same functions’ and ‘the same acts’, for doing so results in identifying the categories and the functions, which would make these acts the *explanans* rather than the *explanandum* (ms a, 9, 11).²⁵⁷ I worry that this is too quick, however. I do agree that such an identification would make the categories the explanans rather than the explanandum. And I agree that making the categories the explanans rather than the explanandum is a problem for categorial readings of the metaphysical deduction (that identify categories and functions) face.²⁵⁸ However, I do not think that referring the ambiguous pronouns to ‘the same function’ or ‘the same acts’ requires identifying the categories with the functions. In this passage, Kant does not use language of being or identity when relating the pure concepts of the understanding with the pronouns, but rather the language of appellation, claiming not that it/they “is/are pure concepts of the understanding [*Verstandesbegriff/e ist/sind,*]” but rather that it/they “is/are called pure concepts of the understanding [*Verstandesbegriff/e heißt/en.*]” Given

²⁵⁷ This is an objection that Hoepfner raises in particular against *categorial* readings of the categories, which identify categories and functions. I agree with Hoepfner that the categorial reading faces the objection he raises.

²⁵⁸ Hoepfner rightly points out that *teleological* readings face a structurally similar problem. These readings claim that the logical forms guide the acts of both judgment and synthesis. By doing so, however, they make the logical forms the explanans rather than the explanandum. As Hoepfner forcefully argues, the text of A79 seems to treat the logical form of judgment as what is explained by “the same function” that also explains the “transcendental content” of our representations” (ms a, 11).

this, one can interpret this claim not as an identification of functions and concepts of the understanding, but rather as the claim that the functions, insofar as they are put to a certain use in synthesizing manifolds of intuition (and are generally represented), earn the right to be called the pure concepts of the understanding. This does not require identifying categories and functions in a way that makes categories the explanans. The categories remain the explanandum, and the functions remain the explanans insofar as their use grounds the categories. The functions then remain distinct from categories insofar as they can be considered independent of their use at all and in their use to unify judgments (in which case they consist of logical forms).

If what I have argued is correct, then my preferred common ground reading gives us a textually adequate interpretation of the argument of the metaphysical deduction proper. As noted above, this reading can avoid the structural worries that Hoepfner raises against teleological and categorial readings. To this extent, the common ground reading is to be preferred to these two on textual grounds. I have also argued that it fares better textually than the generic reading given this latter's reliance on an implausible way of disambiguating the pronouns in the passage. As far as the teleological reading, Longuenesse actually reads the two main sentences of the *Leitfaden* passage not as parallel claims but as importantly different, both in their construction and in the claims that they make (1998, 200f). She holds that the second sentence exhibits a twofold asymmetry in the tenses of the verbs (the understanding "produced" a logical form in concepts but "brings" a transcendental content to its representations) and in what is generated (a form vs. a content). Longuenesse submits that the difference in tenses, signals a difference in the "order of grounds" (Ibid., 201). She rightly claims that there is no chronological priority of the form of discursive judgments to forms of sensible synthesis but adds that there is "a priority of

determination” (Ibid.) in that “[r]eflection according to logical forms, *as a goal to be reached*, guides the acts of unification of the sensible and thereby introduces a transcendental content into the categories” (Ibid). In other words, Longuenesse interprets this latter sentence as claiming that the logical forms guide the synthesis of intuitions.

I do not think we should read the difference in verb tenses in the second sentence as signaling a difference in the order of grounds in the way Longuenesse suggests. That is, I do not think we should read the second passage as suggesting that the logical forms guide or somehow ground the forms of sensible synthesis or categories. Indeed, Kant’s own explicit treatment of the logical forms in this passage does not seem to give them a role in explaining anything about the transcendental content we bring about through the synthesis of intuitions but rather restricts their mention to their relationship to concepts, judgment, and analytical unity. True, Kant explicitly claims that the same *function* and same *actions* provide unity both to acts of judgment that realize the logical form of judgments in concepts and acts of (pure) synthesis that realize a transcendental content in intuitions. But this is something the common ground reading can happily take on. As it stands, there seems to be little to no textual evidence in this passage for the teleological reading’s particular claim that the logical *forms* play a guiding role in synthesis.

Moreover, I am not convinced that there is as big of a contrast between the two main sentences of the *Leitfaden* passage as Longuenesse suggests. I have already mentioned that there seems to be more reason to read the difference in verb tenses as not signaling a difference in the order of explanation but as being merely expositional. I can add that I do not think there is that much of an asymmetry between judgment bringing about a logical form and (pure) synthesis bringing about a content (as is claimed in the second sentence of the *Leitfaden* passage). The

emphasis in content is in part to take up the idea that it is only once we have synthesis that we are in a position to actually employ our judgment to generate cognition from the (synthesized) content of intuitions given to it.²⁵⁹

Finally, even if we do want to follow Longuenesse in holding that there is an important asymmetry to the second sentence, I think her account of why the second sentence is asymmetrical is unsatisfactory. According to Longuenesse, “[t]he reason the second sentence is asymmetrical, whereas the first is not, is that the first expresses the identity between two acts of combination—the discursive combination of concepts and the intuitive combination of the sensible given—whereas the second sentence expresses the generation of their common result, the *original acquisition* of the categories” (Ibid., 201). But it is unclear why the fact that acts of judgment and of pure synthesis have something in common would be something Kant chooses to express with an asymmetry. It makes more sense to express a commonality between two things by a symmetry that precisely highlights their invariance or commonality. In sum, there seems to be less of a contrast between the two sentences of the *Leitfaden* than Longuenesse’s teleological reading suggest, and her account of why the second sentence is asymmetrical is not fully satisfactory. To the extent that the common ground reading avoids these issues while still providing a clear, illuminating reading of this passage, it seems preferable to the teleological reading.

Like other alternative readings, we can also see that the reductive reading fails to make as good sense of this passage because it holds that the act of synthesis of intuitions is a kind of judgment. The problem with this claim is that this requires treating synthesis and judgment as the

²⁵⁹ Cf. Kant’s claim earlier in the third *Leitfaden* section that synthesis is that which unifies the elements of cognition into a content (A78/B103).

same in kind. But the passage's entire treatment of judgment and synthesis explicitly contrasts judgments and intuitions even as it connects functions with both. Nothing in the passage suggests that synthesis is a kind of judgment. So, the text does not support this reading. If a reductive reading were the only one available on philosophical grounds, we might be pushed to it, even if it is not as clean a fit for the passage. But I hope to have shown that the common ground reading is a textually adequate and philosophically attractive alternative. Given this, we are not forced to the reductive reading, which incurs textual costs.

If what I have argued for is correct, then my interpretation of the metaphysical deduction is able to meet (1) the standard of giving a satisfactory interpretation of the *Leitfaden* passage itself. On this reading, the “functions” in this passage are logical functions of the understanding: fundamental acts through which the mind orders representations in general under communal ones. When they are used to order manifolds of concepts, they constitute the logical forms of judgment that order and unify these discursive manifolds. When they are used to order manifolds of intuitions, they constitute the acts of pure synthesis (according to concepts) that order and unify intuitive manifolds in a way that constitutes the transcendental content of our representations, i.e., content which can be put to use in experience/cognition of *Gegenstände*. I now turn to argue that this reading is able to make sense of other texts that discuss the metaphysical deduction's accomplishments.

5.2.2 Other Texts Discussing the Metaphysical Deduction

The main texts that discuss the metaphysical deduction are (a) Kant's explicit mention of this argument by name in section 26 of the transcendental deduction (B159) and his discussion of

what the Transcendental Analytic accomplishes in (b) the second section of the introduction to the Transcendental Dialectic A299/B355f and in (c) “On the transcendental ideas” A321/B377f. I take them up in order.

In section 26 of the B-deduction, Kant begins by explicitly referencing the metaphysical deduction. Here he writes,

“In the **metaphysical deduction**, the origin of the *a priori* categories in general was established through their complete coincidence with the universal logical functions of thinking” (B159).²⁶⁰

My common ground reading is easily able to make sense of this text. For on this reading, both logical forms of judgment and categories originate in exercises of the logical functions of the understanding or of thinking to combine a manifold of representations. The metaphysical deduction establishes this *a priori* origin of the categories in the logical functions because it argues that the categories are all systematically generated in particular exercises of the logical functions to combine manifolds of intuition. In my reading, the “complete coincidence” of categories with universal logical functions consists of the fact that each category is a realization of a logical function to combine a manifold of intuition. I have spelled out in detail in the previous chapter how each category is generated. Since the categories originate in applications of the logical functions, and these functions are the fundamental *a priori* resources of our capacity to think, the categories thereby also have an *a priori* origin.²⁶¹

²⁶⁰ “In der **metaphysischen Deduktion** wurde der Ursprung der Kategorien *a priori* überhaupt durch ihre völlige Zusammentreffung mit den allgemeinen logischen Funktionen des Denkens dargetan” (B159).

²⁶¹ One might worry that given Kant’s indication that the metaphysical deduction is concerned with establishing an origin, rather than a right that this counts against my interpretation of the metaphysical deduction as a deduction in the technical sense Henrich spells out. However, I do not think we have to read this passage this way. In particular, we can emphasize that the context of this passage is the *transcendental* deduction of the categories. As such, when

Other readings seem not to make as good sense of this passage insofar as they do not give the logical functions of thinking pride of place. The passage explicitly claims that the coincidence between categories and functions is what establishes the former's a priori origin. The passage thereby casts the functions of thinking as the *explanans* for the categories' a priori origin (which serves in turn as the *explanandum*). Here the reductive reading (with its reliance on judgment and its claim that synthesis is a kind of judgment) seems to lack the resources to make sense of this passage. And indeed, it is hard to see how it could do so without connecting judgments to functions. It is open to proponents of a reductive reading to claim that here Kant uses "functions of thinking" to mean "forms of judgment" regarded as actions of the understanding.²⁶² This would make sense of the text, but given that Kant explicitly mentions "functions" rather than forms, the common ground reading seems to be a slightly better fit for this passage. The categorial reading seems to fare worse. As Hoepfner points out, this reading casts the categories in the role of the *explanans* rather than the *explanandum* by claiming that the categories give unity both to acts of judgment and synthesis. But in doing this, the reading is unable to give an explanation of the categories themselves and of their *a priori* origin, which is precisely what this passage claims the metaphysical deduction accomplishes.

The teleological reading fares better to the extent that it holds that logical functions guided by logical forms provide unity to both acts of synthesis and judgment. For in doing so, it seems to claim that the categories originate in an exercise of logical functions that is guided by the

Kant brings up the metaphysical deduction, it is for the sake of discussing what this prior argument establishes that is of relevance for the current deduction: an a priori origin to the categories. Still, the metaphysical deduction remains a deduction in the technical sense of vindicating our right to be in possession of and to use these categories in thought by appeal to this origin.

²⁶² Cf. Bunte's claim that it is essential that in the table of judgments lists the forms of judgment as forms of the understanding because transcendental logic differentiates forms of judgment not just according to their validity in syllogisms but according to their cognition-constituting function (2016, 41).

logical forms. That is, the teleological reading fares better to the extent that it appeals to the logical functions in explaining the *a priori* origin of the categories. The problem is that this passage does not mention logical forms of judgment at all. This is a key part of the teleological interpretation of the metaphysical deduction. But Kant does not mention these at all in his gloss of what this argument accomplishes. Given this, the common ground reading makes better sense of this passage than the teleological reading.

Hoepfner's generic reading seems the most attractive alternative to the common ground reading with respect to this passage. This reading claims that acts of judgment and synthesis share a "common generic structure" (ms a, 30f; ms b, 20; cf. 2011, 204-6). It thereby holds that the "complete coincidence [*völlige Zusammentreffung*]" between categories and logical functions is established by the fact that acts of judgments and synthesis (although specifically different) are "*generically the same* in the sense of being different species of *the same genus*" (ms a, 30). According to this reading, by showing the generic identity of acts of judgments and of synthesis, Kant establishes that the categories have an *a priori* origin. The "complete coincidence" between functions and categories on this reading consists in the fact that the categories are "one-to-one assignable to logical functions of judgment and can thus be understood as concepts originating *a priori* in the same understanding that also judges" (ms a, 31) This is a different account of how the coincidence between functions and categories (which justifies the *a priori* origin of the categories) is established from mine. And although I have given arguments above as to why my interpretation should be preferred, it should be noted that Hoepfner's generic reading is able to make sense of this text in a way other the other alternatives cannot.

If what I have argued so far is correct, then the common ground reading is able to make as least as good sense as other readings of the passage in the B-edition transcendental deduction in which Kant explicitly refers back to the metaphysical deduction. I now turn to argue that this reading can also make sense of passages from the Dialectic where Kant seems to refer back to the metaphysical deduction.

In the second section of the Introduction to the Transcendental Dialectic, in the section titled “On reason in general” Kant discusses a complication in giving a philosophical definition (*Erklärung*)²⁶³ of the highest power of cognition [*oberste Erkenntniskraft*]), i.e., of reason, and proceeds to relate his treatment of the understanding with his treatment of reason:

[1] There is of it [reason] as of the understanding, a merely formal, i.e., logical use, there reason abstracts from all content of cognition, but also a real [use], there it [reason] itself contains the origin of certain concepts and fundamental propositions that it [reason] borrows neither from the sense nor from the understanding. [2] The first [logical] capacity has certainly long since been explained by the logicians as the capacity for mediate inferring (in contrast to that of immediate inferences); the second [real/transcendental capacity] however, which itself generates concepts is not yet thereby had insight into. [3] Now since here a division of reason into a logical and transcendental capacity occurs, a higher concept of this source of cognition must be sought, which both grasps both concepts under itself, while [4] we can expect according to the analogy with the concepts of the understanding, that [4a] at the same time the logical concept will put in hand the key to the transcendental [concept] and [4b] the tale of functions of the first [of the concepts of the understanding] will put in hand the ancestral line of the concepts of reason. (A299/B355f).²⁶⁴

²⁶³ Kant distinguishes between philosophical definitions [*Erklärungen*] and mathematical definitions [*Definitionen*] in the Discipline of Pure Reason within the Doctrine of Method (A730/B758). Philosophical definitions are the product of analysis and exposition of given concepts, only explaining the defined concept. Mathematical definitions, by contrast are the product of synthesis, of the construction of concepts and thereby make the defined concept.

²⁶⁴ [1] *Es gibt von ihr [Vernunft] wie von dem Verstande, einen bloß formalen, d.i. logischen Gebrauch, da die Vernunft von allem Inhalte der Erkenntnis abstrahiert, aber auch einen realen, da sie selbst [Vernunft] den Ursprung gewisser Begriffe und Grundsätze enthält, die sie [Vernunft] weder von den Sinnen, noch vom Verstande entlehnt. [2] Das erstere [logische] Vermögen ist nun freilich vorlängst von den Logikern durch das Vermögen mittelbar zu schließen (zum Unterschiede von den unmittelbaren Schlüssen, consequentis immediatis) erklärt worden; das zweite [reale/transzendente] aber, welches selbst Begriffe erzeugt, wird dadurch noch nicht eingesehen. [3] Da nun hier eine Einteilung der Vernunft in ein logisches und ein transzendentes Vermögen vorkommt, so muß ein höherer Begriff von dieser Erkenntnisquelle gesucht werden, welcher beide Begriffe unter sich befaßt, indessen [4] wir nach der Analogie mit den Verstandesbegriffen erwarten können, das [4a] der logische*

In the first sentence in this passage [1], Kant notes that both reason and understanding have a logical and a real use. The logical use is one where our higher faculties of cognition “abstract from all content of cognition” (A299/B355). By contrast, the real use is one where our higher faculties themselves through their characteristic activity serve as the “origin of certain concepts and foundational propositions” (Ibid.).²⁶⁵ Each of these uses seems to require its own capacity of cognition for Kant. This is supported by Kant’s immediately speaking in the next sentence [2] of a logical capacity, which gives a purely formal *Erklärung*, and a “transcendental capacity” “which itself generates concepts [*Begriffe erzeugt*]” (Ibid.) and therefore requires a different *Erklärung*. Indeed, Kant explicitly claims in the second part of the sentence that the logical definition long given by logicians does not provide us with any insight into the transcendental capacity of reason (which generates its own concepts). In the next sentence [3] then Kant explicitly fleshes out this division of the capacity of reason, claiming that a “division of reason into a logical and a transcendental capacity occurs here” (Ibid.). He then cites this division in the capacity of reason as the reason why “a higher concept of this source of cognition must be sought that grasps both concepts [the logical and the transcendental] under itself [*unter such befaßt*]” (Ibid.). Kant then partially fleshes out how these logical, transcendental, and higher concepts of the capacity of reason relate to each other by discussing how these relate to the understanding. Kant writes in the second part of the last sentence [4], “from the analogy with the concepts of the understanding, we can expect both that [4a] the logical concept will put in our hand the key [*den Schlüssel an die Hand geben*] to the transcendental one and [4b] that the table

Begriff zugleich den Schlüssel zum transzendentalen, und [4b] die Tafel der Funktionen der ersteren [der Verstandesbegriffen] die Stammliefer der Vernunftbegriffe an die Hand geben werde.

²⁶⁵ Kant’s explicit focus here is on reason, but the same points apply to understanding, as I shall argue below.

of functions of the former [the concepts of the understanding] will give us the ancestral line [*Stammleiter*] of the concepts of reason” (A299/B356). In other words, Kant here claims that the capacity of the understanding (like that of reason) is to be subdivided into a logical and a real or transcendental capacity. Likewise, there also needs to be a higher concept of the understanding that encompasses both the logical and real one. But more directly relevant to our current purposes, there is a key claim about the way the concepts of the understanding are to be related in transcendental philosophy here. Implicit in this sentence **[4a]** is the claim that the logical concept of the understanding puts in our hands the transcendental concept of the understanding. It is because this is the case (and because reason is suitably analogous to the understanding in this way) that we can expect the logical concept of reason will put in our hands the transcendental concept of reason, as Kant claims.

The final claim Kant makes in this passage, **[4b]**, concerns a relation not between two concepts of the understanding or of reason but a relation between the understanding and reason. In particular, Kant here claims that the table of functions of the concepts of the understanding puts in our hands the ancestral line of the concepts of reason. This is a claim as to how the fundamental structure of our capacity of understanding provides a guide to the fundamental structure of our capacity of reason.

Given this interpretation of this passage, we can see that Kant seems to claim that in philosophically treating our pure reason, we can find two kinds of guidance by looking at his previous treatment of the understanding: (a) intra-capacity guidance as to how the logical concept of an intellectual capacity can lead to a transcendental one, and (b) inter-capacity guidance as to how the table of the functions of the understanding can lead to the ancestral line

of the concepts of reason. My focus here will be on (a). Even though there is much of interest to say about (b), that concerns the relationship between reason and understanding, which lies beyond the scope of this project (although I will have a bit to say about that toward the end of the chapter).

For my purposes, what is key in this passage is the claims that are implicit in it concerning how the different concepts of the understanding relate. In [2] and [3] in particular, Kant seems to commit himself to the claims that the logical concept of the understanding is distinct from the transcendental one (which actually generates concepts) and that there is a higher concept of the understanding that grasps both of these concepts under itself. Moreover, in [4a], Kant commits himself to the claim that the logical concept of the understanding gives us the key to the transcendental one. Given the way Kant treats the three concepts of our intellectual capacities in this passage, readings of the metaphysical deduction need to give an account of these three different concepts of the understanding (logical, transcendental, and higher) and of how the logical gives us the key to the transcendental one.

My common ground reading can easily make sense of this passage. This reading centrally holds that the logical functions serve as the ground of both the logical forms of judgment and the pure concepts of the understanding. On this reading, the essence of the logical capacity of understanding (our capacity for its formal, logical use) is specified in the logical forms of judgment as the fundamental forms for ordering discursive manifolds of representations. The essence of the transcendental capacity of understanding (our capacity for its real use) is specified in the content of the categories as the fundamental forms for ordering intuitive manifolds. Finally, the essence of the higher capacity of understanding (whose concept must comprehend

both the logical and real capacities) is specified in the logical functions of the understanding themselves. In [4a] Kant claims that the logical concept of the understanding “puts in hand the key” to the transcendental concept. I submit that the actual “key” to this transcendental concept is the “higher concept” of the understanding which Kant claims “must be sought” (as Kant mentions in [3]) by the transcendental philosopher. In suggesting this, I am claiming that this passage refers back to the metaphysical deduction. For on my view, the metaphysical deduction proceeds by (1) an identification of the logical concept of the understanding (constituted by the identification of the logical forms of judgment), (2) a progression from the logical to the higher concept (constituted by the abstraction from these forms to the functions that ground their possibility), and (3) a progression from the higher concept to the real concept (in the application of these same logical functions to order manifolds of intuition and generate the categories). Reading the passage in this way makes sense of the claims Kant makes about how logical, higher, and transcendental concepts of our intellectual capacities relate.²⁶⁶

If what I have argued is correct, then the common ground reading gives an illuminating reading of this passage. Other readings can make sense of this passage by giving their own account of how the three concepts of the understanding (the logical, the real, and the higher) relate. The reductive reading essentially holds that synthesis is a kind of judgment, for it holds that judgments are the “same functions” or “acts” that give unity both to judgment and synthesis

²⁶⁶ As I elaborate below, I tentatively suggest that the common ground reading of the metaphysical deduction is in a great position to make sense of Kant’s claim (in [4b]) that the “table of functions” will give us the ancestral ladder of the concepts of reason. For according to this reading, it is precisely the logical functions that are the fundamental spontaneous resources of the understanding, the fundamental ways in which it can order manifolds of representations in general. It is the structure of these functions that ultimately grounds the way in which we generate the concepts of reason by exercising the relational logical functions under the guidance of reason to order certain discursive manifolds (chains or series or prosyllogisms seeking the unconditioned). The details of this lie beyond the scope of this project, but I sketch a tentative outline of this below.

of intuitions. Given this reduction of synthesis to judgment, it is unclear that the reductive reading has enough moving parts to make sense of this passage. The logical concept of the understanding is presumably constituted by the logical forms of judgment in this reading. The real or transcendental concept is presumably constituted by the kind of judgment that synthesis is. However, it is unclear what the “higher concept” that is supposed to grasp both under itself is. Judgment is that which gives unity to the different activities of the understanding on this reading, but the logical forms of judgment are already associated with the logical concept. The reductive reading could claim that a schematic aspect of judgment (shared by judgments that are acts of synthesis and those that are not) constitutes the higher concept.²⁶⁷ However, it is unclear what the content of this higher concept is on Kant’s system according to such a reading. The proponent of such a reductive reading owes us an account of this concept.

A better alternative for the proponent of a reductive reading is to claim that the higher concept is constituted by the logical forms considered as forms of the understanding. This seems compatible with the passage, but its account of the relation between the logical and the higher concepts of the understanding does not seem as satisfactory as that of the common ground reading. The common ground reading has a simple and attractive reading because it gives pride of place to the logical functions of the understanding as such, which can be seen straightforwardly to constitute the higher concept of the understanding in a way that spans both acts of judgment and of synthesis. By contrast, the reductive reading seems to tie the higher and logical concepts of the understanding too close together. For this reading centrally holds that the functions that constitute the higher concepts are ultimately the logical forms of judgment that

²⁶⁷ This would make the reductive reading similar in structure to a generic reading.

also constitute the logical concept (even if they are considered a certain way). Therefore, although the reductive reading might be able to make sense of this passage, it does not seem to provide as attractive an interpretation as the common ground reading.

The categorial reading holds that the categories give unity both to acts of synthesis and of judgment. It thus offers a kind of reduction of judgment and synthesis to their being applications of the categories. Given these commitments, it seems this reading would hold that the logical concept of the understanding consists of the use of the categories in merely logical judgment, while the transcendental concept consists of the use of the categories in acts of synthesis. It seems natural to hold on this reading that the categories themselves, as that which unifies different activities of the understanding, constitute the higher concept. Unfortunately, this seems to locate the categories in the wrong place. For Kant clearly associates the categories as a priori concepts of *Gegenstände* with the transcendental concept of the understanding (which deals with concepts that the understanding itself generates, i.e., of the pure concepts of the understanding). This does not refute the categorial reading. However, it does seem like a cost to the plausibility of its interpretation of this passage. For it does not seem to do justice to the way Kant uses the logical, transcendental, and higher concepts of the understanding in this passage.

The teleological reading holds that the logical forms of judgment guide and therefore ultimately give unity to both judgment and synthesis. In giving the logical forms of judgment this central place, however, this reading seems to face a problem that the reductive reading held: that of not having enough moving parts to relate the three concepts of the understanding. For again, presumably this reading would associate the logical forms of judgment with the logical concept of the understanding. Acts of synthesis and their general representation in the categories would

then be associated with the transcendental concept. But the higher concept, which is supposed to include the other two under itself, would seem also to be associated with the logical forms of judgment. For, after all, these forms are what ultimately unify that which is associated with the logical and transcendental concepts (judgment and synthesis, respectively). But perhaps there is more to work with for this reading than there is for the reductive. For this reading holds that it is the logical functions, *as guided by* the logical forms, that unify both judgments and synthesis.²⁶⁸ Given this nuance, the teleological reading could say that the logical functions as such, independently of their guidance by logical forms, constitute the higher concept, while the logical forms themselves constitute the logical concept. The teleological reading can thus interpret the logical concept of the understanding's giving us the "key to the transcendental" (implicit in [4a]) as the transcendental philosopher's realization that the logical forms guide the acts of synthesis represented in the categories in the course of the metaphysical deduction.

The teleological reading's interpretation of this passage seems more plausible than that of the reductive reading. However, it does not seem to give as natural an interpretation of it as the common ground reading. For if it is really the logical functions *as guided by logical forms* that are the acts that give unity both to judgment and synthesis, then it seems natural to think that it is only under the guidance of the logical forms that the logical functions can encompass both judgments and synthesis. That is, it seems that on this reading, the logical forms' guidance of the logical functions must be part of what constitutes the higher concept of the understanding. But if this is the case, then again, these forms seem to be associated both with the higher and logical

²⁶⁸ Cf. Longuenesse (1995, 78n10).

concepts of the understanding. This does not refute the teleological reading, but it does point out that this reading brings with it more puzzles than the common ground reading.

Finally, the generic reading holds that the same function that gives unity to judgments and intuitions is their common genus, i.e., a common generic structure of these two specifically different acts of the understanding. As such, it has enough resources to give a straightforward interpretation of what constitutes the different concepts of the understanding. The logical concept is constituted by the logical forms of judgment. The transcendental concept is constituted by the categories as general representations of acts of synthesis. Finally, the higher concept is constituted by the generic structure that these two acts share. One can ask proponents of this reading what exactly this generic structure is, and Hoepfner insightfully offers a systematic answer. He argues that these functions are the generic complex tripartite acts of representing variety, homogeneity, and unity as well as of presupposing of sensibility (for judgment, this dependence is a reference to sensible intuition, for synthesis, it is a reference to the synopsis of sense impressions) (ms a, 19, 31; ms b, 22; cf. 2011, 204-6, 208)). As noted in chapter 1, it is a virtue of Hoepfner's view that he systematically assigns to each of these generic acts of representation (and to the presupposition of sensibility of these acts) one of the headings of Kant's tables (ms a, 31; ms b, 24-32; 2011, 210-215).²⁶⁹ In doing this, Hoepfner associates these

²⁶⁹ Hoepfner assigns (i) quality to acts of representing variety, (ii) quantity to acts of representing homogeneity, (iii) relation to acts of representing unity, and (iv) modality to the presupposition of a relation to sensibility. For Hoepfner (ms a; ms b; 2011):

The act of using a subject concept in a judgment and the synthesis of apprehension are species of (i) the fundamental generic qualitative act of representing *variety*: (a) the subject concept of a judgment represents specific (and so specifically different, i.e., *varying*) objects while (b) the synthesis of apprehension represents a variety of sensible qualities.

The act of using a predicate concept in a judgment and the synthesis of reproduction are species of (ii) the fundamental generic quantitative act of representing *homogeneity*: (a) the predicate concept of a judgment represents objects as the same in kind (and so homogeneous), (b) the synthesis of reproduction represents parts of a mereological whole as homogeneous.

different dimensions of representational acts with the four different headings of Kant's architectonic tables: quality,²⁷⁰ quantity, relation, and modality. Given all this, such, Hoepfner's generic reading is able to connect systematic aspects of Kant's philosophy with these different concepts of the understanding. So, the generic reading fares well with respect to this passage, being able to give a natural and plausible interpretation of these different concepts of the understanding.

Implicit in this passage [4a] is the claim that the logical concept of the understanding puts in our hands the key to the transcendental concept. The generic reading can interpret "the key to the transcendental concept" as the key to justifying the a priori origin of the categories in virtue of their establishing exact correspondence with the logical forms of judgment. For on this reading, this correspondence to logical form (and so to the logical concept of the understanding) is precisely what allows us to consider these acts of synthesis and (generally represented) categories as acts of the understanding in its real use (rather than mere acts of imagination) and so as constituting the transcendental concept of the understanding (ms b, 19). The generic reading therefore seems to give a natural and plausible reading of this passage, one that is different from but just as plausible a reading as the common ground reading. However, as I argued in the first chapter, Hoepfner's reading does not fit the structure of the second section of

The act of combining discursive representations in a judgment and the synthesis of recognition are species of (iii) the fundamental generic relational act of representing *unity*: (a) the act of combining discursive representations in a judgment represents a unity in and of kinds and properties of objects, (b) the synthesis of recognition represents the unity of individual objects and their properties.

These generic acts always have a (iv) presupposition of a relation to sensibility. Acts of judgment depend essentially on (a) reference to sensible intuitions, while acts of synthesis depend essentially on (b) a synopsis of sense impressions. I think my interpretation is to be preferred not only because it avoids the worries I think his faces but also because it is more systematic. For Hoepfner's view only employs one quantitative and one qualitative concept of reflection (diversity for quality and homogeneity or identity in relation) in his account of the functions.

²⁷⁰ Hoepfner addresses the issue of his order being different. He notes that his order is that of "experiential use" (A662/B690) as Kant puts it in the Appendix to the Dialectic. This is opposed to the order of explanation in which quantity is to be considered first (ms a, 31n99).

the Introduction to the Transcendental Dialectic proceeds as well as the common ground reading. In this section, Kant seems to present the logical concept of reason and to use that concept as a guide to the higher concept of reason, which in turn guides us to the transcendental concept. This section of the Dialectic's treatment of these concepts thus consists of a progression from logical to higher to transcendental concepts of reason. Hoepfner's generic reading, however, proposes a progression from the logical to the transcendental and then to the higher concept of the understanding. As such, Hoepfner's generic reading seems not to make as good sense of the parallel that the Transcendental Dialectic invokes as the common ground reading.²⁷¹

With this discussion of how the different readings fare with respect to this passage in the second section introduction to the Transcendental Dialectic in hand, we can turn to another Dialectic passage that seems to refer to the metaphysical deduction of the categories, which occurs in the beginning of the section title, "On the transcendental ideas [*Von der transzendentalen Ideen*]"

[1] The transcendental analytic gave us an example of how the mere logical form of our cognition could contain the origin of pure concepts a priori, which represent *Gegenstände* prior to all experience, or rather which indicate the synthetic unity that alone makes possible empirical cognition of *Gegenstände*. [2] The

²⁷¹ One might worry that the progression in this section is actually from the higher to the logical concept of reason before turning to the real concept of reason, given that the first subsection is titled, "On reason in general." However, I think the situation here is parallel to that in the metaphysical deduction given Wolff's distinction (noted in chapter three) between the four basic [*Grund-*] and the twelve elementary [*Elementar-*] functions. In the metaphysical deduction, the progression is: basic functions of the understanding (corresponding to different traditionally conceived acts of the intellect: conception, judgment, reason, and method) to basic forms of judgment (corresponding to the primary moments of judgment), to elementary forms of judgment (corresponding to the essence of the capacity to judge) to elementary functions of thinking (corresponding to the essence of the capacity to bring representations forth). In this section of the Dialectic, the progression is: general treatment of reason in general (as the capacity for unity of the rules of the understanding under principles) to the logical concept of reason (its logical form in syllogisms), to reason's proper [*eigentlichem*] *Grundsatz* of seeking the unconditioned. In both cases, the approach begins at the level of the higher concept (basic functions and reason in general), then it descends to the logical concept (logical forms of judgment and logical syllogistic form of reason) and through it finds the fleshed-out essence of the higher concept (elementary functions and *Grundsatz* of seeking the unconditioned). For both the understanding and reason then we take a route from the higher concept to the lower and back to the higher before progressing to the real or transcendental concept.

form of judgments (transformed into a concept of the synthesis of intuitions) brought categories forth, which direct all use of the understanding in experience (A321/B377f).²⁷²

To the extent that it is plausible and attractive to read the previous Dialectic passage as referring to the metaphysical deduction, it is at least as plausible and attractive to read this passage as doing so. For like the above passage, this one treats the issue of the progression from the logical form of a higher or intellectual capacity for cognition to the generation of that capacity's proprietary or original content. The case seems even better if we consider the fact that the original content and capacity at issue here are the categories and the understanding as a capacity to judge. Indeed, Kant explicitly mentions the categories in both these sentences. In [1], he refers to them as "pure concepts a priori, which indicate a synthetic unity that alone makes possible an experience of *Gegenstände*." In [2], he explicitly refers to them by name and characterizes them as "concepts of a synthesis of intuition." If we do take these passages to refer to the metaphysical deduction as I have suggested, then it looks like (for our purposes) the key interpretive issue in this second passage concerns the way the logical form of judgment is "transformed [*verwandelt*]" into the "concept of the synthesis of intuitions" that generates or "b[rings] forth" the categories. On the common ground reading I have argued for, this transformation is easily made sense of. This transformation consists of (a) the abstraction from logical forms of judgment to the logical functions of the understanding as such (as fundamental

²⁷² [1] *Die transzendente Analytik gab uns ein Beispiel wie die bloße logische Form unserer Erkenntnis den Ursprung von reinen Begriffen a priori enthalten könne, welche vor aller Erfahrung Gegenstände vorstellen, oder vielmehr die synthetische Einheit anzeigen, welche allein eine empirische Erkenntnis von Gegenständen möglich macht.* [2] *Die Form der Urteile (in einen Begriff von der Synthesis der Anschauungen verwandelt) brachte Kategorien hervor, welche allen Verstandesgebrauch in der Erfahrung leiten* (A321/B377f).

forms for ordering manifolds of representations in general) and (b) the application of these functions to order intuitive manifolds (in acts of pure synthesis according to concepts). In other words, this transformation from logical forms of judgment to concepts of the (pure) synthesis of intuition (according to concepts) corresponds to (what on my common ground reading are) the last two steps of the metaphysical deduction (from forms to functions and functions to categories). The common ground reading can thus easily make sense of this passage, giving a natural and plausible reading of it that fits with my proposed interpretation of other key passages.

At first glance, it might seem that a reductive reading can easily deal with this passage. After all, in [1] Kant might seem to claim that the logical form of judgment contains the origin of pure a priori concepts and so that the categories reduce to logical forms in some sense. For he claims that “the logical form of our cognition” contains this origin. Moreover, if we omit the parenthesis in sentence [2], we seem to get a claim close to this reading’s central theses (that acts of judgment are the “same functions” that unite judgment and the synthesis of intuitions), viz., the claim that “the form of judgment brought the categories forth.” But if this were the case, then it seems that there would be no need for the logical forms to be “transformed” into concepts of the synthesis of intuition. For according to this reading, the synthesis of intuitions *already is* a kind of judgment. It would thus seem that no such transformation is required. This is not to say that this passage refutes the reductive reading or that such a reading cannot give any account of this transformation. However, it does seem like the reductive reading has trouble giving a natural, plausible interpretation of this passage. As far as I can tell, this reading’s central claim that acts of synthesis are acts of judgment requires it to interpret the transformation at issue in the passages a kind of realization or transformation of how we understand the logical forms. That is,

the logical form of judgment is transformed into the concept of synthesis of intuitions because we realize that the synthesis of intuitions is really a judgment. Unfortunately, this way of interpreting the transformation seems to get what is transformed wrong. For it suggests that we realize acts of synthesis are really acts of judgment, i.e., it transforms our understanding of acts of synthesis so that we see them as judgments. The passage, however, claims not that synthesis is transformed into a concept of the logical form of judgment, but rather that the logical form of judgment is transformed into a concept of synthesis of intuitions. This is not a decisive consideration against it, but it is a cost of this reading.

A categorial reading of the metaphysical deduction (which holds that the categories give unity to acts of judgment and synthesis of intuition) seems to have trouble making sense of this passage. For in making the categories play this role, this reading gives the categories the role of *explanans* rather than *explanandum*. The passage, however, does not claim in [1] that the categories already contain the logical forms of judgment but rather the opposite. Similarly, the passage claims in [2] that the categories are brought forth by transforming the logical form of judgment into the concept of the synthesis of intuitions, not that the categories are transformed into the logical forms. As such, the categorial reading has trouble making sense of this passage. Moreover, like the reductive reading, the categorial reading has trouble making sense of the “transformation” of the logical form of judgment into the concept of synthesis of intuitions. For it holds that the categories in some sense *already contain* the logical forms of judgment, to the extent that they give them unity. This suggests that on the categorial reading no transformation is required. Again, this is not to say that this passage refutes the categorial reading. Just as for the reductive reading, some account of the transformation might be given. The categorial readings’

central claim (that the categories give unity to judgments and intuitions) seems to similarly force this reading to interpret the transformation at issue as a kind of realization or transformation in how we understand the logical forms. That is, on this reading the logical form of judgment is transformed into the concept of the synthesis of intuitions because we realize that the categories underlie the logical forms of judgment. Nothing in the text rules out such an interpretation, but it seems like a less natural and plausible interpretation than the common ground reading.

Like the reductive reading, the teleological reading of the metaphysical deduction (which holds that the logical forms of judgment guide both acts of judgment and synthesis) seems initially to fit nicely with this passage. For in [1], Kant might seem to claim that the logical form of judgment contains the origin of pure a priori concepts and so that the categories reduce in some sense to the logical forms in claiming that “the logical form of our cognition” contains this origin. Moreover, if we omit the parenthesis in sentence [2], we seem to get a claim close to this reading’s central claim, viz., “the form of judgment brought the categories forth.” But again, if this were the case, then there would seem to be no need for the logical forms to be “transformed” into concepts of the synthesis of intuition as the passage claims. The teleological reading needs to give some account of this transformation that makes sense of this passage. Perhaps the idea is that the logical forms, as such, provide unity to acts of synthesis. But this unifying of acts of synthesis is not yet enough for them to constitute *bona fide* concepts of the synthesis of intuitions. For that, something else is required, and this something is what brings the categories as such *bona fide* concepts forth. I think that the way Longuenesse develops her teleological reading can spell out this interpretation in a way that nicely fits this idea. For Longuenesse’s view of how the categories are generated fits this pattern. This view holds that categories have a

twofold status, first as rules of synthesis and then as clear reflected universal representations. Given this status, Longuenesse holds that the categories are generated in the transcendental figurative synthesis of the imagination, as “pure concepts of the unity of synthesis” that “guide synthesis” without yet being “universal or reflected” representations (1998, 47, 63-4). It is only after we apply reflection to synthesized manifolds of intuition that we acquire the categories as discursive universal clear concepts under which appearances are subsumed (Longuenesse 2005, 29, 42). In this reading, when the logical forms guide the synthesis of intuitions, they have not yet been transformed into *bona fide* concepts of the synthesis of intuition. This transformation only occurs when we reflect on these logically guided (i.e., guided by the logical forms) acts of synthesis. It seems then that Longuenesse’s teleological reading can give a satisfactory account of this passage and of the transformation of logical forms into categories. In particular, it seems to fare better than the reductive or the categorial reading.

Finally, there is Hoepfner’s generic reading. This reading holds that it is a common genus or generic structure that unifies acts of judgment and of synthesis. According to this reading, judgment and synthesis are generically identical but specifically different acts, i.e., they share a genus but are different species of that genus. However, the claim that judgment and synthesis share a common structure does not fit too well with Kant’s claim that the logical form of judgment is “transformed” into a concept of synthesis. The idea behind the generic reading seems to be not that logical forms of judgment transform into concepts of synthesis, but rather that logical forms of judgment and concepts of synthesis are themselves both an instance of some further, generic thing. As such, it seems that this reading (like others besides the common ground one) has to interpret this transformation as a transformation in how we understand the logical

forms. For the generic reading, it seems that this transformation comes down to the realization that judgment and synthesis share a common generic structure. This is certainly a possible interpretation of this passage. However, it does not strike me as natural or plausible an interpretation of this transformation as the more straightforward one available to the common ground reading. For the common ground reading can interpret this transformation of the logical forms into categories as an actual transformation that takes place across steps in the metaphysical deduction.

We can now go over the results of this section. Here I have argued that my interpretation is better able to meet interpretive standard **(2)** for interpretations of the metaphysical deduction than the alternatives: being consistent with other texts that discuss the metaphysical deduction. I considered one text from the B-deduction and two texts in the Transcendental Dialectic. The common ground reading was able to make sense of these texts, giving natural and plausible interpretations of all of them. Thus, my preferred common ground reading is easily able to meet this standard. We saw that, by contrast, other readings did not fare so well.

The reductive reading cannot make quite as good sense of the B-deduction passage because it does not give pride of place to the logical functions as such (which this passage highlights). This reading also runs into difficulties making sense of the first Dialectic passage we considered. At best, it seems to give a less attractive account of what constitutes the higher concept of the understanding than the common ground reading. Finally, this reading was able to give a less natural interpretation of the second Dialectic passage's "transformation" of the logical form of judgment to the concept of synthesis of intuitions as a realization.

The categorial reading runs into trouble with the B-deduction passage because it seems to cast the categories in the role of *explanans* rather than that of *explanandum*. Moreover, it faces issues concerning both of these Dialectic passages. If anything, it fits the first Dialectic passage even worse than the reductive reading, being unable to give a satisfactory account of the higher concept of the understanding due to its giving the categories a central explanatory role (thus having to associate the categories with both the higher and transcendental concept). With respect to the second passage, it faces the same worry as the reductive reading of giving a less natural and plausible interpretation of the “transformation” at issue as a realization.

We saw that Longuenesse’s teleological reading is able to give a natural and plausible interpretation of the second Dialectic passage. However, it is unable to give a natural interpretation of the first Dialectic passage because it seems to require that the logical forms of judgment be associated with both the higher and logical concepts of the understanding. Moreover, although this reading is able to make sense of the B-deduction passage along the same lines as the common ground reading but is a worse fit since this passage does not explicitly mention the logical forms at all.

Finally, Hoepfner’s generic reading is able to give a natural and plausible interpretation of the B-deduction passage and the first Dialectic passage and the way it relates the different concepts of the understanding. However, it is not able to deal with the second Dialectic passage as naturally, having to interpret the “transformation” from logical form to the concept of synthesis as an epistemic realization. Moreover, as I also argued in chapter one, this reading gives a less attractive reading of the parallel Kant draws between the metaphysical deduction and the parallel second section of the Transcendental Dialectic. For the generic reading holds the

progression of the metaphysical deduction is one from the logical to the transcendental to the higher concept of the understanding. But the progression we find in this section the Dialectic is one from the logical to the higher to the transcendental concept of reason.

If what I have argued so far is correct, then the common ground reading is able to make sense of other passages that refer back to the metaphysical deduction's accomplishment in a way that is more plausible and natural than any other reading. It is therefore able to meet standard **(2)**, being consistent with other texts that discuss the metaphysical deduction. Moreover, if what I have argued is correct, then other readings are not so clearly able to meet this standard. They all run into issues making sense of at least one of these passages. I now turn to discuss the last interpretive standard that interpretations of the metaphysical deduction must meet: **(3)** giving an appropriate role to the metaphysical deduction within the project of the Transcendental Analytic as a whole.

5.2.3 The Role of the Metaphysical Deduction in the Transcendental Analytic

As I argued in the first chapter, a key part of giving a plausible interpretation of the metaphysical deduction is giving it a plausible place in the argumentative economy of the Transcendental Analytic. In particular, this argument has to achieve enough but not too much: enough to constitute an independent, prior argument to the transcendental deduction but not so much that it renders the transcendental deduction (or the Analytic of Principles) superfluous. I shall now spell out my own account of the role that the metaphysical deduction plays in the Transcendental Analytic, focusing on its relationship to the transcendental deduction.

In broad outline, my view is that the metaphysical deduction is a deduction in the historically contextual sense of an argument that legitimizes a claim in the face of a challenge by appealing to an origin of the claim in a *factum*. On my view then the metaphysical deduction (1) legitimizes a claim to use the categories in genuine thinking of things, by (2) appeal to their origin in (3) the *factum* of the logical functions as the fundamental *a priori* resources of our capacity to bring representations forth.²⁷³ This claim is challenged by the Humean skeptical challenge that we cannot think of genuine *a priori* concepts of *Gegenstände* because we have no satisfactory account of how the mind could acquire these concepts of objectively necessary connections between beings. In the face of this challenge, this claim is legitimated by tracing the origin of these categories to the exercise of the logical functions to order manifolds of intuition in general. By vindicating this claim, we vindicate our right to use the categories as genuine *a priori* concepts in thinking of *Gegenstände* in particular).

With this interpretation of the metaphysical deduction in hand, we can turn to the question of how the metaphysical deduction (so interpreted) relates to the transcendental deduction. This is not the place to develop a reading of Kant's transcendental deduction of the categories. Such an endeavor lies well beyond the scope of this project. Nonetheless, I will broadly discuss the relation of this transcendental deduction to the metaphysical one that is my focus. Although the details are fraught and interpretations vary widely, there is relatively broad agreement that the transcendental deduction establishes that the categories are conditions of the possibility of experience. That is enough for my present purposes. Experience in Kant's sense is empirical

²⁷³ This is in keeping with my following Henrich in holding that Kant works with a historically contextualized notion of a deduction taken from the legal tradition he was familiar with. According to this sense a 'deduction' is an argument given in a *Deduktionsschrift* (1989, 30-40). As I noted in chapter 1, I modify and develop Henrich's interpretive hypothesis to argue that we should think that Kant's philosophical notion of a deduction is an argument that consists of (1) the legitimation of a claim or right by (2) a tracing to the origin of that claim in (3) a *factum*.

cognition (cf. B128, B147, B166). Experience consists of both the sensing of *Gegenstände* and the thinking of *Gegenstände*.²⁷⁴ On my view, the metaphysical deduction focuses on establishing the conditions of the possibility of this latter, intellectual aspect of experience, viz., our (genuine) thinking of *Gegenstände*. Kant argues that our thinking of *Gegenstände* is constituted by our use of the categories in thinking and that these pure concepts are made possible by the logical functions. It thus establishes the logical functions as conditions of the possibility of thinking of *Gegenstände*. We can see then that in my view the metaphysical deduction takes up a prior task to the transcendental deduction. This task is presupposed by the transcendental deduction insofar as this latter argument assumes that the categories must have a pure origin in the understanding if we are to really use them to think of *Gegenstände* and connections between their being.

That the transcendental deduction presupposes the a priori origin of the categories in the understanding (that the metaphysical deduction establishes) is supported by Kant's discussion of the way the concepts of the understanding must originate in the first section of the transcendental deduction, titled, "On the principles of a transcendental deduction in general [*Von den Prinzipien einer transz. Deduktion überhaupt*]" (A84/B116). Here Kant explicitly claims that one cannot generate the concept of cause by abstracting from regularities in appearances, and that "If one were to think of escaping from the toils"²⁷⁵ of giving a transcendental deduction of the categories in this way (by holding that one can get the concept of cause by abstracting from empirical regularities), "then one has not noticed that the concept of cause cannot arise in this [*empirical*] way at all, but must either be grounded in the understanding completely a priori or else be

²⁷⁴ Cf. Kant's claim that experience is a synthetic combination of intuitions (A8/B12) and that the form of experience is grounded in the "inner source of pure intuiting [*Anschauung*] and thinking [*Denken*]" (A86/B118).

²⁷⁵ *Gedächte man sich von der Mühsamkeit dieser Untersuchungen dadurch loszuwickeln*" (A91/B123).

entirely surrendered as a mere fantasy of the brain [*Hirngespinst*]” (A91/B123f).²⁷⁶ In other words, I interpret Kant in this sentence as referring to what the metaphysical deduction establishes, viz., that if *genuine* thinking of necessary connections between beings (or in Hume’s terms, existents) and so of *Gegenstände* is to be possible, then this thinking must be grounded in i.e., originate in our pure understanding. I have argued that this thinking is grounded in the application of the logical functions (that constitute the essence of the understanding as a capacity to bring forth representations) to order or combine manifolds of intuition in general.

To the extent that thinking of things consists of the intellectual aspect of experience, the metaphysical deduction helps to partially vindicate our right to put these concepts to use in synthetic *a priori* cognition of *Gegenstände* in judgments of experience. In particular, it defends this claim in the face of the skeptical challenge that we cannot make this use of these concepts because there is no satisfactory account of their origin. In providing this partial defense of this claim, the metaphysical deduction is also presupposed by the transcendental deduction, which seeks to vindicate the claim to our categories to use in experience of *Gegenstände*.

On my common ground reading then the metaphysical deduction accomplishes a relatively focused and indispensable task within the argumentative economy of the Transcendental Analytic, vindicating our right to be in possession of and make use of these central metaphysical concepts by giving a purely intellectual origin to them and defending our claim to use these concepts in experience (in jointly thinking and sensing *Gegenstände*) from the challenge that the

²⁷⁶ “...so bemerkt man nicht, daß auf diese [empirische] Weise der Begriff der Ursache gar nicht entspringen kann, sondern daß er entweder völlig *a priori* im Verstande müsse gegründet sein, oder als ein bloßes Hirngespinst gänzlich aufgegeben werden müsse” (A91/B123f).

intellectual form of experience (i.e., our thinking of *Gegenstände*) is impossible given that we have no adequate account of its origin.

It might seem that this reading does not fit well with Kant's actual discussion of the metaphysical deduction in section 26 of the B-edition of the transcendental deduction. For here Kant claims "In the **metaphysical deduction** the origin of the a priori categories in general was established through their complete coincidence with the universal logical functions of thinking" (B159).²⁷⁷ He then immediately contrasts this with the transcendental deduction, writing "in the **transcendental deduction**, however, their possibility as a priori cognition of *Gegenstände* of an intuition in general was exhibited (§§20, 21)" (B159).²⁷⁸ Given this, one might worry that here Kant claims that the metaphysical deduction *merely* establishes an origin and so is merely an answer to the *quid facts* without being an answer to the *quid juris*. That is, one might worry that Kant in this passage is claiming that the metaphysical deduction is not actually a deduction in the technical sense of an argument that legitimizes a claim to a right by tracing this claim to an origin in a *factum*. However, we need not read this passage in this way. In particular, given that the context of this reference to the metaphysical deduction is within the transcendental deduction, Kant here is referring to this prior argument for the sake of mentioning what it establishes for the purposes of the transcendental deduction. Seen in this light, it is natural to think that what Kant means to highlight in referencing the metaphysical deduction in this passage is this prior argument's establishing the a priori origin of the understanding in exercises of the logical functions of the understanding. Once this origin of the categories is established by the

²⁷⁷ "In der **metaphysischen Deduktion** wurde der Ursprung der Kategorien a priori überhaupt durch ihre völlige Zusammentreffung mit den allgemeinen logischen Funktionen des Denkens" (B159).

²⁷⁸ "In der **transzendentalen [Deduktion]** aber die Möglichkeit derselben [Kategorien] als Erkenntnisse a priori von Gegenständen einer Anschauung überhaupt (§§ 20. 21.) dargestellt" (B159).

metaphysical deduction, sections 20 and 21 of transcendental deduction can go on to establish how the categories (in part due to their pure a priori origin) can constitute a priori cognitions of *Gegenstände* in intuition in general. This is all compatible with the metaphysical deduction being a deduction in the technical sense I have argued and with our interpretation of it as vindicating our right to put these categories to use in thinking.

If what I have argued in this section is correct, then my interpretation thus seems able to meet standard **(3)**, giving an appropriate role to the metaphysical deduction within the Transcendental Analytic. For it locates the metaphysical deduction as doing work that is indispensable but nonetheless still preparatory for the transcendental deduction.

If my arguments so far concerning my interpretation go through, then my common ground reading is able to meet all three standards (set out in chapter one) that interpretations of the metaphysical requirement must meet. Investigating in more detail whether the other readings are able to meet standard **(3)** would require engaging with many details concerning possible views of the metaphysical and transcendental deduction. It therefore lies beyond the scope of this dissertation. Given this limitation, it must be admitted I have not conclusively argued that my interpretation is the correct interpretation. However, I hope to have shown that my interpretation is a serious contender and indeed the most attractive in this taxonomy of interpretations of the metaphysical deduction, given that I have already argued that other readings are unable to meet standards **(1)** and **(2)** as well as my preferred one. I now continue building my case for this by focusing on how my common ground reading is able to meet the desiderata for an interpretation of the metaphysical deduction set out in chapter one, aiming to show the virtues of my reading.

5.3 Meeting the Desiderata

In the first chapter, I set out the following desiderata for readings of the metaphysical deduction:

(A) explanatory power: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it helps explain how and why Kant employs and relates the logical functions, logical forms and the categories in the metaphysical deduction as he does.

(B) charity: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it avoids attributing misguided or mistaken views to Kant and construes it as an insightful argument.

(C) fruitfulness: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it helps us to understand other aspects of Kant's philosophy better.

(D) unification: an interpretation of the metaphysical deduction is *ceteris paribus* better to the extent that it allows us to unify our understanding of different activities of the intellect.

In this section, I will argue that my common ground reading is able to meet not only the standards for readings of the metaphysical deduction but also the desiderata.

5.3.1 Explaining the Role of Forms, Functions, and Categories in the Argument

I claim that my common ground reading has the interpretive virtue of explanatory power, providing illuminating accounts of the explanatory roles the logical functions, forms, and categories play in the argument of the metaphysical deduction. In order to argue for this, I need to show how my reading's interpretations of the logical forms, logical functions, and categories explain how and why Kant employs them in the argument and relates them as he does.

We have seen that along the course of the text of the *Leitfaden* chapter, Kant uses the logical forms of judgment as a guiding thread to the functions of the understanding and to the categories. He relates these elements by gleaning the functions from the forms and claiming that these functions give unity both to acts of judgments and of synthesis of intuitions. As I have argued, on my view this consists of a three-step progression of the argument: (1) identifications of logical forms of judgment, (2) transition from logical forms to logical functions of the understanding, and (3) transition from logical functions to categories. I shall now show how my interpretation of the logical forms, functions, and categories and the way they systematically relate explains how and why Kant employs them in the argument as he does.

First, begin with the logical functions. In my reading, these are specified as the fundamental spontaneous resources of the understanding as a capacity to think or judge. It is precisely because they concern the ordering of representations in general, rather than the ordering of a specific kind of representations, they are able to span the ordering of both discursive and intuitive representations that the understanding can put to use.²⁷⁹ When these logical functions are used to order different kinds of representations, they take different forms. When they are used to order conceptual or discursive representations, they take the form of the logical forms of judgment. When they are, instead, used to order perceptual or intuitive representations, they take the form of acts of understanding and pure productive imagination that order intuitions into synthetic unities that our understanding can take up in reflection. And these acts of pure synthesis are generally represented in the categories. On my reading then, the categories can be thought of as essentially concepts of the way the logical functions are

²⁷⁹ As, I note below, I think this ultimately also allows them to span desires.

employed to guide acts of pure synthesis that combine intuitive representations in general into beings that can be experienced by the subject of thinking and cognition.

The interpretation of each of these elements of Kant's philosophy given by my common ground reading is able to explain why they play the role that they do. For we do not, in the course of ordinary experience, have access to the logical functions *as such*. In order to grasp these logical functions, to discover these most fundamental resources of the capacity to think, we must first begin by first considering the fundamental ways the understanding can combine its own proprietary representations: conceptual or discursive ones. On this way of reading Kant, he argues in the metaphysical deduction that the basic structure of conceptual thinking (embodied in the logical forms) provides a guide to the fundamental structure of our capacity to bring forth representations (embodied in the logical functions) and thereby a guide to the basic structure of our thinking of *Gegenstände* in general (embodied in the categories). The logical forms naturally serve as the starting point for the argument because combining concepts and discursive representations is epistemically prior to the combination of representations in general or to thinking of *Gegenstände*. The logical functions then serve as the turning point for the argument because they are the fundamental origin of all the representation-ordering actions of the understanding. It is in virtue of the categories' origin in and through the exercise of the logical functions to order certain manifolds of intuition in general that they constitute genuine pure *a priori* concepts of the understanding and so genuine concepts of *Gegenstände*. The origin of the categories in these functions is precisely that which allows us to vindicate our right to be in possession of genuine concepts of connections between beings in the face of the Humean challenge that we have no such concepts (because we have no satisfactory account of their

origin). It is also that which allows us to vindicate our right to use these concepts in thinking and so our right to think of *Gegenstände* that can causally interact with one another in a common world. My common ground reading therefore gives illuminating accounts of the logical forms, logical functions, and categories as well as of the way the first lead to the second and ultimately to the origin of the third in the second. In doing this, it gives an illuminating explanation of the role that the logical forms, the logical functions, and the categories play in the metaphysical deduction. My reading therefore meets this first desideratum: **(A)** explanatory power.

5.3.2 What's Insightful About the Argument

At this point, I have argued that my common ground reading is able to explain the role the logical functions and categories play in the argumentative within Kant's system. However, it would be even better if my reading could help show that Kant's argument is not just well-motivated and well-executed within his philosophical system but also that this argument (or at least the broad argumentative strategy Kant employs) is a good piece of philosophy. On my view, Kant is giving a genuinely insightful argument, even if we're not inclined to buy into all the details of his systematic critical philosophy. As I interpret it, the argument is meant to be a qualified answer to the Humean challenge that it is impossible to think of necessary connections between beings (or in Hume's preferred terms, existents). The Humean skeptic (given his view that the content of our thoughts has to ultimately come from impressions and the fact that we seem to have no impressions of such necessary connections) poses a challenge to the proponent of thinking of things, viz., to articulate how it is that we could genuinely think of such connections between beings.

The insightful strategy that underlies the argument of Kant's metaphysical deduction is to articulate an alternative model of the mind to a Humean one. This model gives a richer set of resources to the understanding. This richer conception of the understanding is the source of the account that the Humean skeptic asks of the proponent of thinking of necessary connections between beings: an account of how a purely intellectual origin of the categories would be sufficient to ground the possibility of thinking of such necessary connections. Roughly, the idea is that the underlying unifying activities of this richer conception of the understanding (the logical functions) that make possible the combination of conceptual representations into judgments (realized as the logical forms) also make possible the combination of perceptual representations into experiences of things that are necessarily connected (realized as the categories and the pure synthesis according to these concepts).²⁸⁰

In interpreting Kant's argument in this way, I follow Houston Smit in giving a conditional constitutive reading of Kant's critical project (ms a; ms, b 2-3; ms c, 9). According to this reading, Kant is not interested in arguing or claiming that experience is actual or even possible. Instead, he is centrally interested in arguing that things in themselves must be constituted in a certain way if experience is to be possible. On this way of reading Kant, the argument of the metaphysical deduction does not constitutively claim that humans, as transcendental subjects of thinking, in fact, have a supersensible constitution whose essence is captured by the logical functions of the understanding (and which can therefore generate the categories). Rather, the argument claims that, if experience is to be possible, then our supersensible constitution as transcendental subjects of thinking must be such that its essence is captured by the logical

²⁸⁰ More precisely, it is the account of the formal possibility of this experience, i.e., of how the form of such experience is possible.

functions of the understanding. This does not violate the “boundary condition of cognition” of Kant’s critical philosophy. As Smit has convincingly argued, this condition is concerned with the cognition of objects as such (1999, 205-209). The cognition the project of the critique offers is self-cognition of how the subject of thought and cognition *as such* (i.e., as subject and not as object) must be constituted if experience is to be possible. So understood then the argument of the metaphysical deduction is part and parcel of a critical philosophy that makes claims about what the essence of the understanding and sensibility of transcendental subjects would have to be like in order for experience to be possible without going beyond its boundaries or violating its proscriptions. Understood in this way, the metaphysical deduction essentially claims that if thinking of *Gegenstände* is to be possible, then it must be grounded in the essence of the understanding of a transcendental subject, an essence that is captured by the logical functions of the understanding. It must be grounded, in particular, in the exercise of the logical functions to combine perceptual representations (manifolds of intuitions) in general.

At this point, it must be noted that even if we see that Kant is articulating an alternative model of the mind that can answer the Humean skeptical challenge, we may not agree with Kant about the fundamental cognitive structure of the mind. We thus may not be inclined to accept the model of the mind and of the understanding that Kant offers. Nonetheless, we can see Kant’s strategy is philosophically attractive. For one, he develops a model of the mind and the understanding by systematizing the logical and epistemological resources available to him. The model he develops is able to systematically capture the logic of his time, and additionally, it is rich enough to explain and systematic capture the thinking of *Gegenstände*. Kant’s model, considered in his own philosophical context delivers the goods is highly attractive in what it

accomplishes. For this model, embodied in the table of logical functions (as the essence of the capacity to bring forth representations), is capable of synthesizing and systematically explaining the logic he employs and metaphysics he aims to critically vindicate.

At this point, one might think that it is all well and good that in Kant's context it is a philosophically attractive model of the mind. However, we now know a lot more than Kant. From a contemporary perspective, Kant's model of the understanding (like his views on logic) is bound to seem less attractive to many than it does from his own historical perspective. In particular, one might object that we know now that our capacities of cognition are the products of evolution and so are not plausibly construed as grounded in a timeless essence of our supersensible capacities. I think this is a fair point to make. However, it is worth emphasizing that what I take to be the general strategy behind the metaphysical deduction remains attractive from a contemporary perspective.

Generally speaking, this is the strategy of finding a unifying set of cognitive resources that can explain both thinking in general as well as thinking and experience of the things we experience. In Kant's own way of pursuing the strategy, the logical functions played this unifying role. He thought of thinking in general as essentially grounded in the logical forms of judgment and of the thinking and experience of things we experience (i.e., *Gegenstände*) as essentially grounded in the categories. But it is open to a contemporary Kantian to pursue the general strategy while adopting different conceptions of thinking in general and of the thinking and experience of things (and of what makes these possible). Indeed, one can see certain Kantian contemporary approaches to the naturalistic metaphysics of mind as pursuing precisely this strategy. One example of this is Rick Grush's work. Grush offers what he calls *an emulation*

theory of representation and explores how it can serve as an information processing framework “that can revealingly synthesize a wide variety of representational functions of the brain” (2004, 377). These include motor control and motor imagery, amodal spatial imagery, visual imagery and perception, cognition and language (2004) but also, the representation of space, time, and objects (2009).

Grush provides rich detail in his account that lies beyond the scope of this project, but the main idea behind the emulation theory Grush develops is that it provides a straightforward solution to a problem (2004, 382). As Grush puts it, the problem is that one system (e.g., a ship’s crew, an embodied human mind, or a brain) is interacting with another system (a ship, an environment, a body) such that the first system has general but imperfect knowledge of the principles of how the second system functions. This imperfect knowledge is due to processing noise (unpredictable currents, environmental perturbations, bodily perturbations). The solution is to run an emulator or model of the process of how the systems interact. This emulator is maintained by a specialized part of the first system (the ship’s navigation team, specialized emulator circuits in the brain) “in order to provide predictions about what its state will be; and to use this prediction in combination with sensory information in order to maintain a good estimate” (Ibid., 382) of the actual state of the system it interacts with. This helps the estimate used by the first system rely on sensor information without being limited by it (due to the “many sub-optimality of the bare sensory process” (2004, 382)).²⁸¹ Grush argues that the brain has and

²⁸¹ More specifically, the system uses an a priori estimate based on the emulator together with a sensor signal to provide a more reliable a posteriori estimate. This is because the strengths and weaknesses of the a priori estimate and the sensory signal measurement are complementary (2009, 319). The a priori estimates are not affected by sensor noise but are affected by process disturbance, while the sensor signal is unaffected by the process disturbance but is subject to sensor noise.

uses many emulators to construct and use representations²⁸² of entities external to it, especially the body and the environment. These emulators include some used for various motor control purposes, for motor imagery, some of the visual scenes that produce anticipations of what will be seen and to produce visual imagery, as well as amodal spatial emulators of the environment that represent what happens in the immediate vicinity. Grush also aims for this framework to synthesize cognition and language (2004, 394-395).

To the extent that Grush's emulation theory offers an information-processing framework that can synthesize the activities of cognition and perception²⁸³ (as well as motor control), it seems to serve as the modern equivalent of Kant's logical functions in providing the representational resources to unify the operations corresponding to thinking in general, thinking and experience of things as well as intentional action. As I interpret Kant, the logical functions provide this unification by providing the basic activities of the embodied mind that, when used to order different kinds of representational input, constitute the logical forms of judgment, the categories (as well as, as I argue below, the categories of freedom) that explain the possibility of thinking in general, of thought and experience of things, and of intentional action. The emulation theory framework also provides this unification albeit differently. It does so by serving as the general information processing architecture that the brain uses to mimic the input-output function of

²⁸² Grush notes that by 'representation' he means a certain kind of phenomenon in particular, "the capacity of a sophisticated system to construct and maintain "internal" states that track the behavior of other entities to assist it in its interactions with these other entities" (2009, 313). As noted in chapter one, I follow Smit in interpreting Kant as having a capacity relative conception of the notion of *Vorstellung*, i.e., representation. According to this conception, representation is what is appropriately put to use by a subject of a capacity of representation in deeds imputable to this subject, viz., acts of representing (ms a). Although they are different, I take there to be something that Grush's and Kant's conceptions of representation share viz., that it is something that the subject of representation (or representing system) does in order to gain information about the represented objects (the entities whose behavior is tracked).

²⁸³ Grush notes that perception, unlike sensation, goes beyond mere sensory input, and represents things as they are in the environment based upon the input of sensation (2004, 390). Grush's view of perception is thus similar to Kant's view of intuitions of *Gegenstände*.

other systems it interacts with in a way that can be integrated with sensory information about these other systems to maintain a better estimate of the state of these other systems as it interacts with them. When this information processing architecture is used to emulate certain systems, it constitutes the representational resources that can explain the possibility of cognition, perception, and experience of things, as well as of motor control. Both the logical functions and the emulation theory framework play the role of unifying cognitive resources that span different kinds of representational functions of the embodied conscious mind.²⁸⁴ To the extent that contemporary naturalistic philosophers pursue the general form of Kant's strategy, we can see that part of Kant's project and his general strategy remains philosophically attractive from a contemporary, scientifically informed perspective even if Kant's particular implementation of this strategy is perhaps less so.

If what I have argued here is correct, then on my reading not only does the argument of the metaphysical deduction make sense within Kant's system but it is, in fact, a good piece of philosophy in the way it insightfully articulates a response to a skeptical challenge to the possibility of our thinking of connections between beings (by appealing to unifying cognitive resources that also explain the possibility of thinking general). From his own perspective, Kant implements this philosophical strategy in an especially appealing way, for in his doing so, he captures the logic of his time and repurposes the metaphysics of his time in a way that critically vindicates it. But even from our contemporary perspective, Kant's general strategy remains attractive and is fruitfully being implemented by contemporary philosophers. My common

²⁸⁴ Building on the work of Grush and others, one might develop a contemporary transcendental philosophy that is not Kant's own but pursues the project of exploring the possibility of thought and cognition of things in general, in any cognitive system whatsoever. I thank Jason Turner for helpful conversations on this topic.

ground reading therefore fares well with respect to desideratum **(B)** charity. I now turn to argue that my reading also helps illuminate our understanding of other aspects of Kant's philosophy and so fares well with respect to desideratum **(C)** fruitfulness.

5.3.3 Illuminating Other Aspects of Kant's Philosophy

I claim that my common ground reading has the interpretive virtue of fruitfulness insofar as it helps us understand other aspects of Kant's philosophy better. Here I go through some of these other aspects, showing how my reading illuminates our understanding of them.

5.3.3.1 *The Context for the Transcendental Deduction*

I have already mentioned how my reading of the metaphysical deduction adequately situates it with respect to the transcendental deduction. Briefly, my reading holds that the metaphysical deduction is an argument that establishes something prior to but indispensable to the transcendental deduction. It establishes that if thinking of necessary connections between beings (and so of things) is to be possible, then it has an a priori origin in our pure understanding (in the logical functions of the understanding that make possible both thinking in general according to the logical forms and thinking of things according to the categories). Thus, the metaphysical argument establishes what the pure origin of the categories would have to be to make possible genuine thinking of *Gegenstände*. This is a prior, indispensable argumentative step to the transcendental deduction insofar as for Kant the experience of things (which this latter argument argues the categories are conditions of the possibility of) requires that we jointly sense and think *Gegenstände*. Thus, if thinking of *Gegenstände* were not possible (which the metaphysical

deduction establishes is possible on the condition that it originates in the pure understanding), neither would experience in the sense Kant requires.

To the extent that my reading allows us to adequately situate these two arguments together, it helps us understand the context in which Kant gives the transcendental deduction, including what he takes to have already established and can rely on in giving this transcendental argument. As I suggested above, my reading makes sense of why toward the end of the introductory section to the transcendental deduction “On the principles of a deduction in general,” Kant reminds us that “If one were to think of escaping from the toil of these investigations” by trying to give an empirical origin to the category of cause, “then one has not noticed that the concept of cause cannot arise in this way at all, but must either be grounded in the understanding completely *a priori* or else be entirely surrendered as a mere phantasm of the brain [*Hirngespinst*]” (A91/B123f).²⁸⁵ That is, my reading proposes that we interpret this passage as making reference to the argument and result of the metaphysical deduction, which shows that if the categories are not to be “entirely surrendered mere phantasms of the brain,” i.e., if genuine thinking of things through the categories is to be possible, then then they “must be grounded in the understanding completely *a priori*,” i.e., they must originate in the *a priori* resources of the pure understanding (the logical functions). To the extent that it helps us better understand the context in which Kant gives the transcendental deduction, my reading helps illuminate our understanding of this latter, transcendental argument.

²⁸⁵ “*Gedächte man sich von der Mühsamkeit dieser Untersuchungen dadurch loszuwickeln, daß man sagte: die Erfahrung böte unablässig Beispiele einer solchen Regelmäßigkeit der Erscheinungen dar, die genugsam Anlaß geben, den Begriff der Ursache davon abzusondern und dadurch zugleich die objective Gültigkeit eines solchen Begriffs zu bewähren, so bemerkt man nicht, daß auf diese Weise der Begriff der Ursache gar nicht entspringen kann, sondern daß er entweder völlig a priori im Verstande müsse gegründet sein, oder als ein bloßes Hirngespinst gänzlich aufgegeben werden müsse*” (A91/B123f).

5.3.3.2 *Metaphysical & Transcendental Expositions and Deductions*

Another part of the first *Critique* that my interpretation can help illuminate in virtue of giving a plausible account of the relationship of the metaphysical and transcendental deduction is the metaphysical and transcendental expositions of the concepts of space and time in the Transcendental Aesthetic. On my view, the metaphysical deduction is prior to the transcendental one. When Kant explicitly designates it as **metaphysical** in section 26 of the B-deduction, he does so in order to emphasize that it deals with “establishing [*darzun*] the a priori origin of the categories in general” (B159). He then signals that the **transcendental** deduction (as it takes place in sections 20 & 21) deals with presenting [*darstellen*] the possibility of the categories as a priori cognitions of *Gegenstände* of an intuition in general. As I have argued, my view holds that the metaphysical deduction’s establishing the a priori origin of the categories is indispensable to (but falls short of) the transcendental deduction’s showing how the categories are synthetic a priori cognitions of *Gegenstände* of an intuition in general. (This latter does this, broadly by showing that the categories make possible such cognition, i.e., experience of such *Gegenstände*). Given this, we can think of the deduction of the categories as a whole as having two moments: (1) a metaphysical one dealing with the a priori origin of these pure intellectual concepts, and (2) a transcendental one dealing with how these pure intellectual concepts (given their a priori origin as established in the metaphysical one) ground the possibility of synthetic a priori cognition of *Gegenstände*.

Now, as I have emphasized, we should follow Henrich in interpreting these two arguments as deductions in the historically contextual and technical sense according to which a deduction is

(1) a defense of a claim to a right that has been challenged by (2) appeal to the origin of that claim (3) in a *factum*. But quite apart from their nature as deductions in this sense, we see that, as metaphysical, the first argument deals with the a priori origin of concepts. The second, as transcendental, deals with the articulation of how these a priori concepts ground the possibility of synthetic a priori cognition. If this way of understanding the complementary senses of a ‘metaphysical’ and ‘transcendental’ at play in the deduction of the categories is on the right track, then this suggests that we read these two terms in the same way in a different pair of philosophical treatments of concepts in the *Critique*. These are the metaphysical and transcendental expositions of the concepts of space and time in the Transcendental Aesthetic. My interpretation suggests (fruitfully, I argue) that Kant’s idea in using these two terms in parallel places of the *Critique* seems is that the critical, properly philosophical treatment or investigation of a priori concepts requires both a metaphysical and a transcendental moment. In the metaphysical moment, the issue of the a priori origin of these concepts is investigated, inquiring what the sources of this concept must be within our capacities for cognition. This gives an account of the a priori origin of these concepts that sets the stage for the next, transcendental moment. This latter moment then explains how these concepts (given their established a priori origin) ground the possibility of synthetic a priori cognitions that employ these concepts.

This suggestion for how to think of the metaphysical and transcendental treatment of a priori concepts generally (and so of metaphysical and transcendental expositions) seems supported by the relevant passages in the Transcendental Aesthetic. Here Kant characterizes an exposition [*Erörterung*] (*expositio*) of a concept as “the distinct (even if not thorough) representation of that which belongs to a concept [*die deutliche (wenn gleich nicht ausführliche) Vorstellung dessen,*

was zu einem Begriff gehört]” (B38). He notes that an exposition is **metaphysical** when it “contains that which presents/exhibits the concept **as given a priori**” [*wenn sie dasjenige enthält, was den Begriff, als a priori gegeben, darstellt*].²⁸⁶ By contrast, he characterizes a **transcendental exposition** as “the explanation²⁸⁷ of a concept as a principle from which insight into the possibility of other synthetic a priori cognitions can be gained [*Erklärung eines Begriffs, als eines Prinzips, woraus die Möglichkeit anderer synthetischer Erkenntnisse a priori eingesehen werden kann*]” (B40).²⁸⁸

As an exposition, a metaphysical exposition represents that which belongs to a concept. But as *metaphysical*, it is an exposition that contains something in particular: that which exhibits the concept a priori.²⁸⁹ On my reading, this a priori exhibition of the concept consists of an account of its a priori origin. A transcendental exposition, as an exposition, also represents something that belongs [*gehört*] to a concept (if it is to be an exposition at all according to Kant’s

²⁸⁶ Given that a concept can be given empirically (as opposed to a priori), it seems that there must be room for something like a physical or empirical exposition of (empirical) concepts. This kind of exposition (in contrast to a metaphysical exposition) would contain that which exhibits a concept as given empirically. This might involve a *Darstellung* or exhibition of the physical causes and grounds of how an empirical concept is given through our sensibility being affected and then reflecting on the resulting intuitions.

²⁸⁷ As noted above, Kant distinguishes between philosophical definitions [*Erklärungen*] and mathematical definitions [*Definitionen*] in the Discipline of Pure Reason within the Doctrine of Method (A730/B758). Given that philosophical definitions are the product of analysis and exposition of given concepts, they only explain the defined concept and cannot be apodictically certain. We only get confirmation for our philosophical expositions or explanations (*Erklärungen*) upon using them to gain synthetic a priori cognition along the course of doing critical philosophy.

²⁸⁸ Given Kant’s presentation, it seems that the distinction between metaphysical/transcendental exposition need not exhaust the kinds of expositions of concepts there are. That is, there could be e.g., a physical or empirical exposition of empirical concepts, representing that which belongs to these concepts empirically, rather than a priori. This seems even more plausible when we consider that a transcendental exposition seems to be in a different business from a metaphysical exposition (given its concern with gaining insight into the possibility of other synthetic a priori cognitions).

²⁸⁹ Kant’s use of exhibits *darstellt* here implies that a metaphysical deduction will involve symbols or schemata by means of which we can *darstellen* the concept if taken in the sense Kant discusses in the third *Critique*, when discussing how we use intuitions to demonstrate the reality of concepts (*KU* 5:351).

characterization of exposition).²⁹⁰ But as *transcendental*, it is in the business of explaining how a priori concepts (given the a priori origin exhibited in the metaphysical exposition) ground the possibility of other synthetic a priori cognitions.

This way of understanding the way in which the metaphysical and transcendental expositions of the concepts of space and time is supported by the way Kant executes them in the text. In giving the metaphysical exposition of the concept of space (i.e., in representing that which belongs to the concept of space which exhibits this concept as given a priori), Kant makes four key points about our original representation of space (A23-5/B38-40):

- (1) it is not an empirical concept drawn from outer experiences.
- (2) it is a necessary representation a priori that is the ground of all outer intuitions.
- (3) it is a pure intuition rather than a general concept.
- (4) it is represented as an infinite given magnitude.

In the metaphysical exposition of the (a priori) concept of space then, Kant discusses what the a priori origin of the concept of space is (insofar as he discusses what our original representation of space must be like, viz., a pure a priori infinite intuition). On the basis of this metaphysical exposition, and its account of the a priori origin of our concept of space, Kant goes on to give a transcendental exposition of how this concept can ground the possibility of synthetic a priori cognitions. In particular, Kant explains how the concept of space can be used as a principle from which insight into the possibility of the synthetic a priori cognitions of geometry can be gained. By Kant's own lights, a successful such transcendental exposition requires (1) that

²⁹⁰ What belongs [*gehört*] to a concept for Kant is not just the marks that are constitutive parts of a concept but rather seems to be quite expansive, including how a concept can be used to ground the possibility of other cognitions as well as that which exhibits a concept as given.

the synthetic a priori cognitions of geometry actually flow from the (a priori) given concept of space, and (2) that these cognitions are only possible under the presupposition of a given way of explaining [*Erklärungsart*]²⁹¹ this concept.²⁹²

As I see it, Kant meets these requirements in his discussion in the paragraphs corresponding to the transcendental exposition. Here he argues first that it is only if space is an intuition that is pure and a priori (and so precedes all *Objecte*)²⁹³ that geometry as a science “that determines the properties of space synthetically yet a priori [*die Eigenschaften des Raumes synthetisch und doch a priori bestimmt*]” (B40) (and whose propositions are apodictic) is possible. He then goes on to note that such a pure a priori intuition is only possible insofar as it has its seat merely in the subject’s formal constitution to be affected by *Objecte*, i.e., insofar as this pure a priori intuition is the form of outer sense in general.

²⁹¹ The term “*Erklärungsart*” is one Kant uses in several places in the first *Critique*. In the System of Principles, he uses it to refer to the explanation for how there is variation in the filling of space without the need to assume empty spaces by appeal to different degrees of a power of expansive repulsion (A174/B216). In the A-edition paralogisms, he uses it to refer to explanations of the interaction between the soul and matter (A390). In the B-edition paralogisms, he uses it to refer to explanations for how the I, as thinking subject is constituted (B420). Finally, in the second Antinomy, Kant uses it to refer to atomism as a way of explaining corporeal appearances (A442/B470). From this, it seems that Kant uses this term for explanatory philosophical theories.

²⁹² This is according to the requirements Kant sets for the transcendental exposition of a concept in general, viz., “(1) that these cognitions actually flow from the given concept [*daß wirklich dergleichen Erkenntnisse aus dem gegebenen Begriffe herfließen*], 2) that these cognitions are only possible under the presupposition of a given way of explaining this concept [*daß diese Erkenntnisse nur unter der Voraussetzung einer gegebenen Erklärungsart dieses Begriffs möglich sind*]” (B40)

²⁹³ As I noted in chapter one, I follow Smit in interpreting Kant as making distinctions between *Gegenstand* and *Object* (or *Objekt*). I read *Objecte* in this passage as the more specific sense of this term: that to which a representation is to be related in an act of representation, as something distinct from the representation we relate it to in such an act. Kant notes that an *Object* in this sense is “that in the concept of which the manifold of a given intuition is united” (B137). It is in relation to a (perhaps only possible) act of synthesis in accordance with a rule that constitutes the representational content of a concept (and the consciousness had in that act) that the manifold of a given intuition has the unity in a concept. Geometry’s cognition of figures are cognitions of mere *Objecte* in this sense. They are ways of delimiting space as the form of our outer sensibility, and they are that to which we relate representations in acts of mathematical construction (of synthesis by the pure productive imagination in pure intuition). By contrast, a *Gegenstand* is the subject of a power considered insofar as it is or can be represented in a capacity of representations as the subject of *some* power (i.e., something real considered as “standing against” a subject that represents it). As such, geometrical cognition is not cognitions of subjects of power and so of *Gegenstände*. Nonetheless, these *Objecte* constitute possible *Gegenstände* of experience (viz., bodies that fill space in the shape of the geometric figures).

We can see then that Kant's execution of the metaphysical and transcendental expositions of space matches my take on the metaphysical and transcendental treatment of a priori concepts (be they deductions or expositions). For the metaphysical exposition of space treats the a priori origin of this concept (by specifying that our original representation of space is an infinite pure a priori intuition), and the transcendental exposition shows how this concept (given this a priori origin) grounds the possibility of the synthetic a priori cognitions of geometry. We can see that the same holds for the metaphysical and transcendental expositions of the concept of time.

In giving the metaphysical exposition of the concept of time (i.e., in representing that which belongs to the concept of space, which exhibits this concept as given a priori) Kant makes five key points about our original representation of time (A30-2/B46-8):

- (1) it is not an empirical concept drawn from an experience.
- (2) it is a necessary representation that grounds all intuitions.
- (3) the a priori necessity of time also grounds the possibility of the axioms of time general (apodictic principles of relations of time): that time has only one dimension, that different times are successive, not simultaneous.
- (4) it is the form of sensible intuition, not a discursive concept.
- (5) it is given as unlimited.

In this metaphysical exposition then Kant discusses what the origin of the concept of time is, for Kant here focuses on what the original representation of time must be like. In particular, Kant argues that this original representation is an a priori infinite intuition and indeed the form of sensible intuition. On the basis of this metaphysical exposition (and its account of the a priori origin of our concepts of time), Kant gives a transcendental exposition of this first concept. Here

Kant shows how time (given the a priori origin spelled out in the metaphysical exposition of this concept) grounds the possibility of certain synthetic a priori cognitions.

First, he refers to a strictly transcendental point (i.e., a point that is actually part of the transcendental exposition of this concept) that he actually makes as part of the metaphysical exposition (in point (3)). Here he discusses how time grounds the possibility of the axioms of time in general, which are strictly universal and apodictically certain (A31/B47). In addition, in the transcendental exposition itself, Kant adds that time similarly makes possible the synthetic a priori cognition of the general theory of motion insofar as it makes possible the concept of alteration, which Kant glosses as “a combination of contradictorily posed predicates,” explaining that “[o]nly in time can both contradictorily opposed determinations in one thing be encountered, namely **successively**” (A32/B48f). Once again, we can see Kant’s execution of the metaphysical and transcendental expositions of time matches my take on the metaphysical and transcendental treatment of a priori concepts (be they deductions or expositions). The metaphysical exposition of this concept treats the a priori origin of this concept (by specifying that our original representation of time is an infinite pure a priori intuition). The transcendental exposition then shows how given this a priori origin of time as an infinite pure a priori intuition, time grounds the possibility of the synthetic a priori cognition of the axioms of time and of the general theory of motion.²⁹⁴

We see then that Kant’s execution of the metaphysical expositions of both space and time matches my take on the metaphysical and transcendental treatment of a priori concepts (be they deductions or expositions). According to this take, the metaphysical moment of the treatments of

²⁹⁴ As Friedman notes, the “general doctrine of motion” here is the mathematical theory of motion Newton develops in the *Principia*” (2015, 9).

a priori concepts articulates their a priori origin. The transcendental moment then articulates how, given the a priori origin articulated in the metaphysical one, these concepts ground the possibility of synthetic a priori cognitions. As articulated above, the metaphysical expositions of the a priori sensible concepts of space and time treat their a priori origin (ultimately in original pure, infinite a priori intuitions). The transcendental expositions then show how these a priori sensible concepts ground the possibility of bodies of synthetic a priori cognitions (of geometry in the case of space and of Newton's mathematical theory of motion and the axioms of time in the case of time). This is parallel to how the metaphysical deduction of the categories first articulates the origin of these pure intellectual concepts in the pure understanding, and the transcendental deduction explains how these pure intellectual concepts (given the origin in pure understanding articulated in the metaphysical deduction), ground the possibility of synthetic a priori cognitions of *Gegenstände*.

If what I have argued in this section is correct, then my reading of the metaphysical deduction helps us better understand not just other parts of the *Transcendental Analytic* but also of the *Transcendental Aesthetic*, to the extent that it suggests that we see Kant's metaphysical and transcendental philosophical treatments of the a priori sensible concepts of space and time (their expositions) as parallel to the metaphysical and transcendental philosophical treatment of the a priori intellectual concepts of the categories (their deduction). In both cases, the metaphysical moment of these treatments articulates the a priori origin of these concepts and the transcendental moment then uses this articulated a priori origin to explain the possibility of synthetic a priori cognition employing these concepts.

Despite there being this parallel between Kant's treatment of space and time and the categories, it is important to keep in mind that expositions and deductions are different kinds of philosophical treatments even if, as metaphysical, they can both deal with a priori origins of concepts, and as transcendental, they can both explain the possibility of synthetic a priori cognition. As we have seen, expositions represent that which belongs to a concept, while deductions seek to legitimize the use of concepts in cognitive acts. Despite being different in this way, they are philosophical projects that are clearly related.

For in the introductory section to the transcendental deduction, Kant seems to claim that giving a metaphysical and transcendental exposition of the concepts of space and time constitutes a transcendental deduction: "We have above traced the concepts of space and time to their sources by means of a transcendental deduction and explained and determined their a priori objective validity" (A87/B119f).²⁹⁵ Kant goes on to add, "With the **pure concepts of the understanding**, however, there first arises the unavoidable need to search for the transcendental deduction not only of them but also of space" (A88/B120).²⁹⁶ The reason Kant gives for there being a need for the transcendental deduction of <space> is that the pure concepts of the understanding "speak of *Gegenstände* not through predicates of intuition and sensibility but through those of pure a priori thinking, they *sich auf Gegenstände beziehen* [relate to *Gegenstände*] generally without any conditions of sensibility" (Ibid.).²⁹⁷ That is, because the categories relate to *Gegenstände* without any conditions of sensibility, they raise the question of

²⁹⁵ "Wir haben oben die Begriffe des Raumes und der Zeit, vermittelt einer transzendentalen Deduktion zu ihren Quellen verfolgt, und ihre objektive Gültigkeit a priori erklärt und bestimmt" (A87/B119f).

²⁹⁶ "Dagegen fängt mit den **reinen Verstandesbegriffen** die unumgängliche Bedürfnis an, nicht allein von ihnen selbst, sondern auch vom Raum die transzendental Deduktion zu suchen" (A88/B120).

²⁹⁷ "sie von Gegenständen nicht durch Prädikate der Anschauung und der Sinnlichkeit, sondern des reinen Denkens a priori redet, sie sich auf Gegenstände ohne alle Bedingungen der Sinnlichkeit allgemein beziehen" (A88/B210).

whether other a priori concepts, like that of space, can relate to *Gegenstände* without any condition of sensible intuition. In Kant's own words, the categories "make the **concept of space** ambiguous [*zweideutig*] by inclining us to use it beyond the conditions of sensible intuition, on which account a transcendental deduction of it was also needed above" (A88/B120f).²⁹⁸

For Kant then, simply using the concept of <space> in geometry does not require a transcendental deduction. As he notes, the science of geometry can "follow its secure course through strictly a priori cognitions without having to beg philosophy for any certification of the pure and lawful pedigree of its fundamental concept of space" (A87/B120).²⁹⁹ This is because the use of this concept in geometry concerns only the external world of senses [*äußere Sinnenwelt*] of which space is the pure form of its intuition. However, once we realize that the categories relate to *Gegenstände* independent of sensibility, we might be tempted to think that, similarly, we can use the concept of <space> to think of *Gegenstände* independent of the conditions of sensibility. It is thereby only once one is dealing with the categories that the need for a transcendental deduction of <space> arises. However, this need is already answered by the metaphysical and transcendental exposition of space, which makes it clear that this concept has a source in the form of our sensible intuition and so has no application beyond it.³⁰⁰

²⁹⁸ "**jenen Begriff des Raumes** zweideutig machen, dadurch, daß sie ich über die Bedingungen der sinnlichen Anschauung zu gebrauchen geneigt sind, weshalb auch oben von ihm eine **transzendente Deduktion vonnöten war**" (A88/B120f).

²⁹⁹ "Gleichwohl geht die Geometrie ihren sicheren Schritt durch lauter Erkenntnisse a priori, ohne daß sie sich wegen der reinen und gesetzmäßigen Abkunft ihres Grundbegriffs vom Raume, von der Philosophie einen Beglaubigungsschein erbitten darf" (A87/B120).

³⁰⁰ Kant does not mention the a priori concept of time here, but it seems that the very same can be said of the concept of time: we might be (and people have been) tempted to apply it beyond conditions of sensibility. From this, the need for a transcendental deduction of <time> arises, which we can give by appeal to the metaphysical and transcendental exposition, which locates the source of this concept in the form of our sensibility and so makes it clear that it has no application beyond it.

On my interpretation, we can better understand why Kant has parallel labels for these sections of the Transcendental Aesthetic (the expositions space and time) and Analytic (the deductions of the categories) dealing with these central a priori concepts of sensibility and of understanding even though they are in different businesses. And, as we have seen, it can do this while helping explain how Kant ultimately relates the expositions and transcendental deductions of a priori concepts.

5.3.3.3 *The Practical Use of <Cause> in the Critique of Practical Reason*

In addition to helping us understand other parts of the first *Critique* better, my reading of the metaphysical deduction is also fruitful in that it can help us make sense of a discussion of the concept of cause which Kant brings up in the second *Critique*. Toward the end of the section titled, “On the Warrant of Pure Reason in its Practical use to an Extension which is Not Possible to it in its Speculative Use” Kant writes, “Had I, with Hume, deprived the concept of causality of causality of objective reality in its practical use not only with respect to things in themselves (the supersensible) but also with respect to objects of the senses, it would be declared devoid of all meaning and, as a theoretically impossible concept, quite unusable; and since no use at all can be made of what is from nothing, the practical use of a concept *theoretically null* [*theoretisch-nichtigen*] would have been absurd” (*KpV* 5:56).³⁰¹ My interpretation of the metaphysical deduction suggests that in referring to Hume’s challenge to the concept of <cause>, Kant is referring to the argument of the metaphysical deduction. In this passage, Kant claims that if

³⁰¹ “Hätte ich, mit Hume, dem Begriffe der Kausalität die objektive Realität im theoretischen Gebrauche nicht allein in Ansehung der Sachen an sich selbst (den Übersinnlichen), sondern auch in Ansehung der Gegenstände der Sinne genommen, so wäre er aller Bedeutung verlustig und als ein theoretisch unmöglicher Begriff für gänzlich unbrauchbar erklärt worden, und da, von nichts sich auch kein Gebrauch machen läßt, der praktische Gebrauch eines theoretisch-nichtigen Begriffs ganz ungereimt gewesen” (*KpV* 5:56).

Hume had been right, and we could form no genuine concept of <cause> (of a necessary causal connection between different beings), then we could not make practical use of it as he seeks to in his practical philosophy. My interpretation suggests that here Kant is saying that his approach to the concept of cause in his practical philosophy (which centers on the practical use we can make of it) rests crucially on the argument of the metaphysical deduction. If the argument of the metaphysical and transcendental³⁰² deductions of the categories did not go through, then the concept of <cause> would be theoretically empty and thus be unusable. This would imply we could not make practical use of it in a critical practical philosophy. In such a case, the project of the second *Critique* would not be feasible.

My reading thus helps us see that in this passage, Kant is referring to the central importance of the metaphysical and transcendental deductions of the categories for the whole of his critical philosophy. For the practical use he seeks to make of the concept of <cause> in his practical critical philosophy depends entirely on his giving a (metaphysical and transcendental) deduction of the categories.

If what I have argued in this section is correct, then my interpretation of the metaphysical deduction meets the desideratum of **(C) fruitfulness** by helping illuminate our understanding of aspects of Kant's philosophy, including the Transcendental Aesthetic, Transcendental Deduction, and his use of <cause> in his critical practical philosophy. I now turn to argue that my reading

³⁰² As noted in previous chapters, there is a division of labor here. The metaphysical deduction shows that in order for them not to be empty, the categories would have to originate in the pure understanding. But the transcendental deduction shows that in order for these non-empty concepts to be applicable to *Gegenstände* that can be given to the understanding in sensibility, they have to ground the possibility of experience. If the metaphysical deduction were not feasible, we would not be in a position to attempt a transcendental deduction. If the transcendental deduction were not feasible, there is a sense in which the result of the metaphysical deduction would be rendered quite meager, for we would not actually be able to put it to use these concepts to cognize *Gegenstände*.

also helps unify our understanding of different activities of our higher capacity for cognition in general.

5.3.4 Unifying Different Activities of Our Higher Capacity for Cognition

In this more tentative section, I outlined my view of how the logical functions of the understanding, in particular, can help us unify our understanding of the different activities of our higher capacity of cognition across Kant's critical philosophy. I argue that, given their status as *unities* of representation-ordering acts, any act of our higher capacity for cognition is ultimately grounded in and consists of an exercise of the logical functions that gives unity to such acts. Much of what I claim here will need elaboration and qualification. Nonetheless, I sketch an outline of how my view of the logical functions allows us to unify different aspects of Kant's philosophy that lie beyond the scope of this dissertation's focus on the metaphysical deduction.

As I mentioned in chapter three, I interpret logical functions as a species of Aristotelian *energeia*. As such, I interpret them as timeless unifying activities through which the understanding constitutes itself as the subject of thinking through the highly general activity of reflection. On my view, the four basic logical functions (quantity, quality, relation, and modality) constitute sub-functions, unities of different aspects of this general activity. This activity essentially consists of ordering manifolds of representations in general so as to determine their quantity, their quality, their relation with respect to each other, and their relation to our higher capacity of cognition (i.e., their modality). We can think of these different sub-functions of the activity of reflection as moments of reflection in keeping with Kant's view that moments are the

uniform constituents of the activity of substances.³⁰³ That is, the functions of quantity, quality, relation, and modality are uniform sub-unities of the continuous activity of reflection. Each of these four basic moments treats representations according to the corresponding concepts of reflection, and each of them can be realized in three different elementary ways. The first unifies representations in one consciousness by treating them according to the first concept of reflection. The second does so by treating them according to the second (thereby opposing the first way of unifying them). And the third does so by treating them according to both (thereby combining the first two ways of unifying them).³⁰⁴ This yields a total of twelve elementary moments of reflection that constitute our capacity to reflect representations in general. The uniform, unchanging temporally undetermined activity of reflection according to the four basic moments is continuously exercised by the same understanding. As the understanding finds itself in different conditions (presented with different manifolds of representations), it realizes different particular elementary moments of reflection in particular acts of reflection in time that order particular manifolds of representations.³⁰⁵ In this way, the activity of reflection (the uniform

³⁰³ Kant writes in the Second Analogy, “alteration is...only possible through a continuous action [*kontinuierliche Handlung*] of causality, which, insofar as it is uniform, is called a moment” (A208/B254).

³⁰⁴ As noted in chapter three, this is in keeping with Smit’s observation that for Kant the understanding can only relate representations to each other in our consciousness according to the four pairs of “concepts of reflection” (A261/B375): <identity> and <diversity>, <agreement> and <opposition>, <inner> and <outer>, and the determinable and its determination (<matter> and <form>) (1999, 2110).

³⁰⁵ This is in keeping with Eric Watkins’s interpretation of Kant’s model of causality. Indeed, Watkins himself notes that “Kant’s account of self-consciousness in the activities of the understanding is a concrete instance of Kant’s model of causality “whereby a connection between representations is brought about as its effect” (2005, 278). This model consists of two different levels of causes that are temporally indeterminate (that of the substance itself and that of its activity) and that result in a temporally determinate effect (2005, Ch. 4, esp. 247, 256, 289). On this model, when a cause brings about its effect, it acts uniformly, thereby generating a continuous flow of states in a substance from one determinate boundary state to another” (Ibid., 256). As a consequence, “the causality of the cause, despite its activity, is uniform, i.e., does not change from one determinate state to another. As Watkins highlights, a substance’s essential properties (and its essential activity), as grounds, do not change, but instead have different determinate effects when they are exercised in different conditions” (Ibid., 289).

exercise of the basic logical functions) and the acts of thinking it grounds across time constitute the mind as a subject of thought and cognition.

Whenever this uniform activity results in a representation-ordering act, there is a numerical unity of the act, i.e., a unity of the exercise of the four basic sub-functions, which is constituted by four different atomic sub-unities of the act.³⁰⁶ That is to say, the different rules (the manifold distinguished) that constitute the numerical unity of an act, are the “moments” of this act. Each moment is a rule, an atomic unity according to which particular representation-ordering acts that determine particular combinations of representations take place. These atomic unities jointly constitute the numerical unity of the representation-ordering act, i.e., the function of ordering particular representations under communal ones. As noted above, the particular representation-ordering acts performed by the understanding (hence, the numerical unities of acts exercised) and the effects that this uniform reflective activity determines vary depending on the conditions that the thinking subject finds itself in. That is, it depends on what manifolds of representation are given to the understanding. When the understanding is given manifolds of discursive representations, the logical functions determine combinations or orderings of these representations according to logical forms in acts of judgment by the capacity to judge and different discursive sub-capacities (understanding in the narrow sense, reason, and the power to judge). When the understanding is given manifolds of intuitive representations, the logical functions determine combinations or orderings of these representations in acts of pure synthesis according to the pure concepts of the understanding performed by the capacity to judge and the

³⁰⁶ I follow Wolff in making the distinction between numerical and atomic functions or unities of acts (1995, 22). This is also in agreement with Reich’s view functions (1992, 27). As Reich notes, “In the case where a manifold can be distinguished in the unity of a certain action, that is, in the function, Kant called these “parts of the ground” (of the unity of the action) “moments” (Ibid). Wolff (1995, 27n56) also agrees with Reich about this.

pure productive imagination. In this way, the continuous exercise of the very same logical functions grounds (a) judgments according to logical forms and (b) acts of pure synthesis according to the concepts of the understanding performed by different sub-capacities of our higher capacity of cognitions. To this picture, I think we can add (more tentatively) that the very same activity of the logical functions, when it is performed under certain conditions also grounds (c) categories of freedom in acts of free determination of the will, and (d) the ideas of reason in syllogistic acts seeking the unconditioned.

5.3.4.1 Functions and Categories of Freedom

First, how the logical functions ground the categories of freedom. In his discussion before the presentation of the table of the categories of freedom, we can see that the concepts of *Gegenstände* of practical reasons are all *modi* of the category of <cause> because they are determinations of a will [*Willensbestimmungen*] by practical reason. These “categories of freedom” are not used theoretically (like the categories “of nature” or “of the understanding”) “in order to bring the manifold of (sensible) **intuition** under one consciousness a priori [*um das Mannigfaltige der (sinnlichen) Anschauung unter ein Bewußtsein a priori zu bringen*]” (KpV 5:65). Rather, they are only used to “subject [*unterwerfen*] the manifold of **desires**³⁰⁷ [*das*

³⁰⁷ Here a complication arises given that it is not clear that desires are, strictly speaking, representations (Cf. Kant’s claim that the feelings of pleasure and displeasure are not representations *Anth.* 7:143). Although I do not have the space to discharge this worry fully, I can note that even desires they are not themselves representations, they are mental states that *are related to and can be ordered* with representations by a thinking and acting subject. For example, when we desire a piece of bread we are presently conscious of, we relate this desire to intuitions of that piece of bread of which we are presently conscious. Similarly, if I exercise my will to eat a piece of pizza rather than a doughnut, then I choose to determine my will in a way that not only endorses the desire for pizza and rejects my desire for the doughnut. I also do this in a way that leads to my interacting more closely with intuitions of the pizza and avoiding intuitions of the doughnut. Desires are therefore directed to intuitions of *Gegenstände*, and by determining my will, I order these desires with each other and with intuitions of their *Gegenstände*. Thus, even if they are mental states that do not constitute representations, it seems that desires can be ordered with themselves and

Mannigfaltige der Begehungen]” to the “unity of one consciousness of a pure will a priori or of a practical reason commanding in the moral law [*im moralischen Gesetze gebietenden praktischen Vernunft]*”. It seems then that the categories of freedom are concepts of how the thinking and acting subject (in conditions in which it is presented manifolds not just of intuitions but also of desires) can take as input this manifold of desires³⁰⁸ and generate as output determinations of the will by practical reason that constitutes free exercises of causality. The details and defense of this view of how the individual logical functions ground the individual categories of freedom lie beyond the scope of this project. Nonetheless, we can sketch a general outline of how this can work.

Very roughly, just as in the theoretical case, the understanding must synthesize a single conscious experience from a manifold of disparate sensory intuitions, in the practical case, practical reason must synthesize a single way of life from a manifold of disparate desires. In the practical case, I think we can get a better grip of how this works by considering the perspective of a particular, empirically determinable subject (rather than the global, holistic perspective of how experience is in general made possible for any possible human subject). This particular, empirically determinable subject experiences a spatiotemporally ordered manifold of intuitions of *Gegenstände* in causal interaction.³⁰⁹ Given the experience of this empirically determinable subject, the subject forms certain likes and dislikes.³¹⁰ This leads to the subject’s having desires,

with representations in ways similar to how representations are ordered with themselves, which is all my representation needs.

³⁰⁸ I think that, since we desire to bring about things that are possible objects of experience, we need to consider this manifold of desire as, as it were overlaid over the manifold of intuitions of *Gegenstände* of we are conscious.

³⁰⁹ An empirically determinable subject can only ever experience a proper subset of the single, holistic universal human experience that Kant mentions in the A-Deduction (A110).

³¹⁰ Cf. Kant’s claims that the concepts of pure practical reason, as consequences of the a priori determination of the will presuppose [*voraussetzen*] *Objekte* rather than relating to them [*sie sich auf beziehen*] (*KpV* 5:65)

which incline it to be the cause of *Gegenstände* it desires.³¹¹ This empirically determinable subject desires and is averse to many different *Gegenstände* that please and pain her, but it cannot satisfy them all. It cannot bring about all that it desires. It must come up with a single course of life that unites all of these desires in a way that conforms to the principles of her practical reason.

My suggestion is that the way in which she does this practical unifying of her desires is by directing, through the exercise of practical reason, the exercise of the logical functions to the manifolds of desires. In exercises of this activity, the logical functions take manifolds of desires as input and yield free determinations of the will according to practical reason as output. On this view then, the categories of freedom are therefore concepts of the different kinds of determinations of the will that a free causality engages in by exercising particular logical functions to order manifolds of desire into her actual actions. According to this interpretation then, the acts by means of which we combine manifolds of desire into determinations of the will are ultimately grounded in the same activity that grounds acts of judgment that combine discursive representations and acts of (pure) synthesis that combine intuitions (according to concepts): the logical functions.

Much more needs to be said to elaborate and defend this proposal. Among other things, the individual functions and categories of freedom need to be linked as I have linked the functions and categories of nature. Pursuing this reading also requires fleshing out the connection between the activity of practical reason in the legislation and determination of the will and the exercise of the logical functions I have claimed is partially constitutive of free determinations of the will.

³¹¹ Cf. Kant's claim in the *Doctrine of Virtue* that the "capacity to desire [*Begehrungsvermögen*] is the capacity to be, through one's representations the cause of *Gegenstände* of these representations" (*DV* 6:211).

And the relation of these categories of freedom to the “concepts of good and evil [*Gut und Böse*]” needs to be specified. All this lies beyond the scope of this dissertation, but I plan to pursue this interpretation in future work.

In this section, I have sketched my view of how my interpretation of the way the logical functions of the understanding partially ground acts of our higher capacity of cognition can be extended to explain not just acts of judgment and of (pure synthesis) but also of determination of the will. Now I turn to do the same for acts of thinking the ideas of reason.

5.3.4.2 *Functions and Ideas of Reason*

To get a sense of how my account of the activity of logical functions can be extended to explain the origin of the ideas of reason, we can begin by noting that the conditions in which this continuous activity can be exercised can vary in different ways. This activity of the understanding can take place in conditions where different manifolds of representations are given to it by sensibility. But it can also take place in conditions where other capacities are being exercised by the same subject, notably the capacity of reason. To elaborate on how reason’s activity might affect the understanding’s continuous reflective activity (according to the logical functions), we can note that Kant has a particular view of the way reason relates to understanding. He discusses explicitly at different points in the Transcendental Dialectic. In a passage in the second section of the Introduction to the Dialectic, Kant seems to propose the view that the reason relates to the understanding as the understanding relates to sensibility:

If the understanding may be a capacity for the unity of appearances by means of rules, then reason is the capacity for the unity of rules of the understanding under *Prinzipien*. *She* [reason] therefore never applies directly [*geht also niemals zunächst auf*] to experience or to any *Gegenstand* but rather to the understanding, in

order to give unity a priori through concepts to the manifold cognitions of the understanding, which is a whole different kind of unity as any which can be achieved by the understanding” (A302/B359).³¹²

Here Kant makes it clear that reason’s activity applies to the understanding as opposed to experience or *Gegenstände* thereof.³¹³ This suggests that reason brings unity to the products of the understanding in a way analogous to how the understanding gives unity to the products of intuition. Kant confirms this thought in another passage later in this section of the Dialectic: “In fact, the manifold of rules and the unity of principles is a demand of reason, in order to bring the understanding into thoroughgoing connection with itself, just as the understanding brings the manifold of intuition under concepts and through them into connection” (A305f/B362).³¹⁴ That is to say, reason brings unity to the manifold rules (which are products of the understanding) in a way analogous to how the understanding brings unity to the manifold intuitions. In this way, reason connects the activities and products of the understanding in a way analogous to how the understanding connects the activities and products of sensible intuition.³¹⁵

This view of how reason relates to the understanding is supported by some other passages in the second section of the first book of the Transcendental Dialectic, titled, “On the transcendental ideas”: “Pure reason leaves everything to the understanding, which relates itself directly to

³¹² “*Der Verstand mag ein Vermögen der Einheit der Erscheinungen vermittelt der Regeln sein, so ist die Vernunft das Vermögen der Einheit der Verstandesregeln unter Prinzipien. Sie geht also niemals zunächst auf Erfahrung, oder auf irgend einen Gegenstand, sondern auf den Verstand, um den mannigfaltigen Erkenntnissen desselben [Verstandes] Einheit a priori durch Begriffe zu geben, welche Vernunftseinheit heißen mag, und von ganz anderer Art ist, als sie von dem Verstande geleistet werden kann*” (A302/B359).

³¹³ Kant echoes this thought later in the passage: “**F**irst, the syllogism does not apply [*geht auf*] to intuitions, in order to bring them under rules (as does this understanding with its categories), but rather deals with concepts and judgments” (A306/B363).

³¹⁴ “*In der Tat ist Mannigfaltigkeit der Regeln und Einheit der Prinzipien eine Forderung der Vernunft, um den Verstand mit sich selbst in durchgängigen Zusammenhang zu bringen, so wie der Verstand das Mannigfaltige der Anschauung unter Begriffe und dadurch jene in Verknüpfung bringt*” (A305f/B362).

³¹⁵ Another passage that supports this view is Kant’s claim that “concepts of reason serve for **grasping** [*zum Begreifen*] just as concepts of the understanding serve for **understanding** [*zum Verstehen*] (of perceptions [*Wahrnehmung*])” (A311/B367).

Gegenstände of intuition or rather their synthesis in imagination” (A326/B382f).³¹⁶ This passage seems to flesh out this view by bringing in the activity of the imagination (a sub-capacity of sensibility, like that of the senses). The more precise idea here seems to be that the understanding’s activity relates directly not so much to the *Gegenstände* of intuition but rather to the synthesis by the imagination of *Gegenstände* of intuition. That is, the understanding’s activity with respect to sensibility really consists of its relating directly and thereby guiding the activity of synthesis by the imagination.³¹⁷ On my view, when the understanding’s activity guides this synthesis, it grounds acts of pure synthesis according to concepts that the categories generally represent. Given this, we should interpret reason’s activity with respect to the understanding in a similar vein. That is, reason’s activity consists in its relating directly and thereby guiding the activity of the understanding. This view seems confirmed by a passage following this one: “Thus, reason relates itself only to the use of the understanding...in order to prescribe the direction toward a certain unity of which the understanding has no concept, and that goes beyond it, to grasp together all the actions of the understanding in respect of every *Gegenstand* into an absolute whole” (A326/B383).³¹⁸ Once again, here we get the claim that reason relates itself directly only to the understanding. But this passage seems to add that reason guides the understanding’s activity by *prescribing* unity a certain unity for it, to a unity that encompasses all particular actions of the understanding into an absolute whole.

³¹⁶ “Die reine Vernunft überlasst alles dem Verstande, der sich zunächst auf die Gegenstände der Anschauung oder vielmehr deren Synthesis in der Einbildungskraft bezieht” (A326/B382f).

³¹⁷ On my view, the pure productive imagination is the imagination insofar as its exercises are grounded in exercises of our higher capacity of cognition.

³¹⁸ “So bezieht sich demnach die Vernunft nur auf den Verstandesgebrauch...um ihm die Richtung auf eine gewisse Einheit vorzuschreiben, von der der Verstand keinen Begriff hat, und die darauf hinausgeht, alle Verstandeshandlungen, in Ansehung eines jeden Gegenstandes in ein absolutes Ganzes zusammenfassen”(A326/B383).

All these passages then suggest a picture in which reason relates to understanding as understanding relates to (the synthesis of imagination in) sensibility.³¹⁹ In both cases, the lower capacity of cognition's activity produces a manifold of representations that the higher capacity of cognition must connect and bring under greater unity that is achievable by the lower capacity alone. The higher capacity brings this unity through a prescriptive activity that guides the activity of the lower capacity. This view of reason's relation to the understanding has important implications for how to think about the way reason's activity relates to the logical functions. It implies that reason's activity directly relates to the understanding's uniform exercise of the logical functions by prescribing greater unity of reason to all the particular acts of the understanding (to all the realizations of these functions) and guiding all these acts (and realizations) in the direction of this greater unity of reason. With this view of how reason's activity relates to the exercise of the logical functions in hand, we can turn to Kant's account of the generation of the ideas of reason in the Transcendental Dialectic.

As Kant notes in the Transcendental Dialectic, the ideas of reason are generated according to the demands of reason as concepts of the unconditioned conditions that end and thereby explain chains or series of inferences (which Kant calls prosyllogisms) in which each step seeks the ground (or condition) for a given (conditioned) cognition (Cf. A307f/B364f, A322f/B379f, A331/B387f). That is, as I noted in chapter one, the ideas of reason are generated in certain exercises of reason to think of concepts of the unconditioned, i.e., concepts of that which can satisfy reason's unrelenting demands. These are concepts that cannot be generated by the

³¹⁹ Another passage from the "system of transcendental ideas" also supports this reading of reason's activity: "pure reason never relates directly [*bezieht sich niemals geradezu auf*] to *Gegenstände* but rather to [*auf*] concepts of the understanding of these [*denselben, the Gegenständen*]" (A335/B392)."

understanding alone because they have as their content determinations that the understanding cannot think (as the understanding only has to do with *Gegenständen* of a possible experience (A308/B364f): “the unconditioned, if it actually occurs, is particularly to be considered according to all the determinations that distinguish it from everything conditioned” (A308/B365).³²⁰ Kant’s explicit view that reason generates its ideas as concepts of the unconditioned conditions that ground the totality of series of prosyllogisms must be nuanced by the fact (discussed above) that reason itself always operates directly on the understanding. As such, reason cannot directly generate its ideas solely by means of its own activity. This is confirmed in a passage at the beginning of the system of cosmological ideas. Here Kant remarks that “only the understanding is that out of which pure and transcendental concepts can arise” and “reason actually generates no concept, but rather in all cases only **liberates** the concept of the understanding from the unavoidable limitations of a possible experience and thus seeks to extend it beyond the limits of the empirical yet however in connection with it [the empirical]” (A408f/B435f).³²¹

My interpretation of the logical functions can make sense of these passages and of how the understanding and reason’s joint activity generates the ideas of reason. As we have seen, on my view, the logical functions are unities of actions of representation-ordering acts. These are reflective, self-constituting acts performed by the understanding. Now we can add that these are acts that can be performed by the understanding under the guidance of reason’s prescriptive

³²⁰ “Das Unbedingte aber, wenn es wirklich Statt hat, kann besonders erwogen werden, nach allen den Bestimmungen, die es von jedem Bedingten unterscheiden” (A308/B365).

³²¹ “daß nur der Verstand es sei, aus welchem reine und transzendente Begriffe entspringen können, daß die Vernunft eigentlich gar keinen Begriff erzeuge, sondern allenfalls nur den Verstandesbegriff, von den unvermeidlichen Einschränkungen einer möglichen Erfahrung **frei mache**, und ihn also über die Grenzen des Empirischen, doch aber in Verknüpfung mit demselben zu erweitern suche” (A408f/B435f).

unifying activity. This activity of reason demands that the understanding think pure concepts of the understanding that can meet the unrelenting demands of serving as concepts of the unconditioned conditions of chains of prosyllogisms) and that are therefore liberated from the limitations of experience. That is, reason's activity demands that the logical functions of the understanding be exercised to think of (merely possible)³²² synthesis of intuitions of *Gegenstände* (i.e., connections between beings that can put an end to reason's demand for unconditioned explanations). On this view then, the "*eigenen Handlungen*" or "unique actions" (*Disc.* 8:221) in which the pure concepts of reason are generated are exercises of the (relational) logical functions under the guidance of reason's prescriptive, unifying activity to order manifolds of series of prosyllogisms.³²³

Again, my aim here is not to give and defend a full interpretation of the generation of the pure concepts or ideas of reason. I merely aim to sketch how my interpretation of the logical functions suggests a plausible interpretation of their contribution to the generation of these ideas. Much more needs to be said (and much more of the Dialectic needs to be discussed) to articulate and defend this interpretation of the way the ideas of reason are generated. Nonetheless, my interpretation of the logical functions of the understanding suggests an elegant way of unifying the essential activities of the understanding and reason while making sense of Kant's claims

³²² Or, in Kant's terms, "problematic," which is the term he reserves for representations of things of which we can say either that it is possible nor that it is impossible (Cf. A286/B343). Cf. also Kant's claim in the Discipline of Pure Reason that the concepts of reason "are merely thought problematically, in order to ground regulative principles of the systematic use of the understanding in the field of experience in relation [*Beziehung*] to them (as heuristic fictions)" and that "they are mere-thought entities [*Gedankendinge*], the possibility of which is not demonstrable [*erweislich*]" (A771/B799).

³²³ These concepts of unconditioned *Gegenstände* include that of a subject that is no longer predicate, that of a presupposition that presupposes nothing further, and an aggregate of members such that nothing further is required to complete the division of a concept (A323/B379)

about the way reason and the understanding contribute to the generation of the pure concepts of reason.

If what I have argued in this section is on the right track, then my interpretation of the metaphysical deduction and of the logical functions in particular helps us unify our understanding not just the activity of judging according to the logical forms of judgment and of pure synthesis according to the pure concepts of the understanding, but also of the activity of willing and acting freely according to the categories of freedom and of generating the ideas of reason. If this is right, then I have made an initial case that my interpretation meets the last desideratum for interpretations of the metaphysical deduction: **(D) unification**.

This concludes my extended argument that my interpretation of the metaphysical deduction is to be preferred to others in the taxonomy given in the first chapter. I have argued that my interpretation meets all the standards for readings of the metaphysical deduction better than other readings. And I have shown that my interpretation is also able to meet all the desiderata, showing the virtues of my reading. This is not to say that I have shown my interpretation is the uniquely correct reading. Nonetheless, I hope to have shown that my interpretation is a philosophically attractive and textually plausible candidate that should be taken seriously.

5.4 Conclusion

In this dissertation, I have given a novel interpretation of the metaphysical deduction and argued that it fares better than other interpretations on offer. In the first chapter, I introduced my preferred reading of the metaphysical deduction, located it within a taxonomy of different interpretations, and set out a framework for evaluating readings of the metaphysical deduction.

According to my view, the metaphysical deduction has a three-step structure: (1) an identification of the logical concept of the understanding, (2) a progression from the logical to the higher concept, and (3) a progression from the higher concept to the real concept. In the second chapter, I gave my account of the first step, arguing that the logical forms of judgment constitute the essence of the understanding as a capacity to judge. In the third chapter, I spelled out my view of the second step, arguing that the logical functions of the understanding, as unities of acts that order or combine representations in general under communal ones, constitute the essence of the understanding as a capacity to bring forth representations. In the fourth chapter, I fleshed out my view of the third step in the argument, giving an account of each of the twelve “unique actions” in which the categories are generated. Finally, in the fifth chapter, I gave an extended argument that my interpretation of the metaphysical deduction is a textually plausible and philosophically attractive reading of the metaphysical deduction.

If what I have argued in this dissertation is correct, then in the metaphysical deduction, Kant insightfully uses the logical resources of the tradition he inherits (the logical forms) to glean the fundamental spontaneous resources of the understanding (the logical functions) that can explain the possibility of concepts required for experience and metaphysics but challenged by a Humean skeptic (the categories). If I am right, then in this argument, Kant makes fruitful use of the philosophical resources available to and developed by him in order to provide an insightful answer to a genuine philosophical problem while preparing the way for the project of the transcendental deduction of the categories. And, as I hope to have shown is at least plausible, the philosophical resources developed and applied by him in this argument (notably, the logical functions) fruitfully apply to other philosophical problems (such as how our higher capacity of

cognition determines the will and how our higher capacity of cognition generates the ideas of reason) in a way that harmonizes with other parts of Kant's critical project.

In the course of this dissertation, the reader has been asked to engage with what, especially at first, might be thought to be an arcane philosophical approach and with unduly complicated technical concepts. But I hope to have shown that if we take Kant seriously on his own terms, if we make the effort to meet him on his own terrain, we are rewarded with an incredibly systematic and rich philosophical framework, one that is worth engaging with and taking seriously even centuries after it was crafted.

APPENDIX A – Table of The Logical Forms of Judgment

1. Quantity of Judgments

Universal (**All** humans are mortal)
 Particular (**Some** humans are women)
 Singular (**This** human is a philosopher)

2. Quality

Affirmative (Humans **are** rational)

Negative (Brute animals **are not** rational)

Infinite (The soul **is non-**mortal)

3. Of Relation

Categorical (Humans **are** rational)

Hypothetical (**If** it rains, **then** it will be wet)

Disjunctive (A triangle is **either** scalene, isosceles,
or equilateral)

4. Modality

Problematic (Antecedent in hypothetical judgment)

Assertoric (Major premise of a syllogism)

Apodictic (Conclusion of a syllogism)

APPENDIX B – Table of The Categories

1. Of Quantity

Unity (Centimeter)

Plurality (X Centimeters)

Totality (Ten Centimeters)

2. Of Quality

Reality (Pleasure)

Negation (Pain)

Limitation (Indifference)

3. Of Relation

Of Substance and Accidents (Metal is heavy)

Of Causality and Dependence (The sun warms the stone)

Of Community (An object is a composite body)

4. Of Modality

Possibility-Impossibility (A body possibly exists)

Existence-Non-existence (A body actually exists)

Necessity-Contingency (Bodies necessarily gravitationally attract one another)

APPENDIX C – Table of The Concepts of Reflection

	1. Of Quantity	
	Identity	
	Diversity	
2. Of Quality		3. Of Relation
Agreement		Inner
Conflict		Outer
	4. Of Modality	
	Matter (The Determinable)	
	Form (Its Determination)	

APPENDIX D – Table of The Functions of the Understanding

	1. Of Quantity	
	Universal (treats representation it orders according to <identity>)	
	Particular (treats representations according to <diversity>)	
	Singular (treats...both <identity> and <diversity>)	
2. Of Quality		3. Of Relation
Affirmative (treats...<agreement>)		Categorical (treats...<inner>)
Negative (treats...<conflict>)		Hypothetical (treats...<outer>)
Infinite (treats...both <agreement> and <conflict>)		Disjunctive (...<inner> and <outer>)
	4. Of Modality	
	Problematic (treats representations it orders according to <matter>)	
	Assertoric (treats representations according to <form>)	
	Apodictic (treats...both <matter> and <form>))	

APPENDIX E – Individual Functions of the Understanding

1. Of Quantity

Universal: treats representation it orders according to <identity>, as identical, thereby ordering them into a unit, a unified quantity of representations

Particular: treats representations it orders according to <diversity>, as differing, thereby ordering them into a differentiated (and therefore manifold) quantity of representations

Singular: treats representations it orders according to both <identity> and <diversity>, as identical in virtue of designating the same individual and thereby different from others

2. Of Quality

Affirmative: treats representations it orders according to <agreement>, as agreeing with others and so as having a positive quality

Negative: treats representations it orders according to <conflict>, as conflicting with others and so as having a negative quality

Infinite: treats representations it orders according to both <agreement> and <conflict>, as both agreeing and conflicting, as having both a positive and negative quality

3. Of Relation

Categorical: treats representations it orders according to <inner>, as internally positing an atomic content

Hypothetical: treats representations it orders according to <outer>, as positing the (outer) conditions for the positing of a content

Disjunctive: representations it orders according to <inner> and <outer>, as internally positing a complex content by positing the (outer) conditions for positing the component contents

4. Of Modality

Problematic: treats representations it orders according to <matter>, as a merely thinkable combination of representations

Assertoric: treats representations according to <form>, as an actually thought and posited combination of representations

Apodictic: treats...both <matter> and <form>, as an actually thought combination of representations that is itself determined (and so determinable) as necessary by other representations

REFERENCES

All reference to Kant's writings, except those of the *Critique of Pure Reason*, are given by volume and page numbers of the Akademie edition of *Kant's gesammelte Schriften* (Berlin: George Reimer, later Walter de Gruyter 1900—). The *Critique of Pure Reason* is cited by the standard A and B pagination of the first (1781) and second (1787) editions respectively.

Allison, H. E. (2004). *Kant's Transcendental Idealism* (revised and expanded edition). Yale University Press.

Allison, H. E. (2015). *Kant's Transcendental Deduction: An Analytical-Historical Commentary*. Oxford University Press.

Arnauld, A., Nicole P. (1992). *La Logique ou l'art de penser*. Gallimard.

Baumgarten, A. G. (1773). *Acroasis logicae in Christianum L. B. De Wolff*. Hemmerde

Bennett, J. (1966). *Kant's Analytic*. Cambridge University Press.

Brandt, R. (1995). *The table of judgments: critique of pure reason A 67-69, B 92-101*. (E. Watkins, Trans.). Ridgeview.

Bröcker, W. (1970). *Kant über Metaphysik und Erfahrung*. V. Klostermann.

Bunte, M. (2016). *Erkenntnis und Funktion: zur Vollständigkeit der Urteilstafel und Einheit des kantischen Systems*. De Gruyter.

Cohen, H. (1871). *Kants Theorie der Erfahrung*. Ferd. Dümmler.

Conant, J. (2016). Why Kant is not a Kantian. *Philosophical Topics*, 44(1), 75-125.

Crusius, C. A. (1747). *Weg zur Gewißheit und Zuverlässigkeit der menschlichen Erkenntnis*. J. F. Gledistch.

Friedman, M. (2013). *Kant's construction of nature: a reading of the metaphysical foundations of natural science*. Cambridge University Press.

Guyer, P. (2001). Space, Time, and The Categories. The Project of the Transcendental Deduction. In R. Schumacher (Ed.), *Idealismus als Theorie der Repräsentation* (pp. 313–338). mentis.

Grush, R. (2004). The emulation theory of representation: Motor control, imagery, and perception. *Behavioral and brain sciences*, 27(3), 377-442.

————— (2009). Space, time and objects. *The Oxford handbook of philosophy and neuroscience*, 311-345.

Haag, J. (2007). *Erfahrung und Gegenstand: das Verhältnis von Sinnlichkeit und Verstand*. V. Klostermann

Heidegger (1962). *Kant und das Problem der Metaphysik*. V. Klostermann.

————— (1977). *Phänomenologische Interpretation von Kants Kritik der reinen Vernunft*. V. Klostermann.

Henrich, D. (1989). Kant's Notion of a Deduction and the Methodological Background of the First Critique. *Kant's transcendental deductions*, (pp. 29-46).

Hinsch, W., Mohr, G. (1994). Leitfäden durch die Analytik der Begriffe. Neuere Arbeiten zu Kants Urteils- und Kategorienlehre. *Allgemeine Zeitschrift für Philosophie*. 19(1), pp. 59-80.

Hoepfner (ms a). Kant's Metaphysical Deduction of the Categories

————— (ms b) The Nature of Kant's Categories

————— (2011). Kants Begriff der Funktion und die Vollständigkeit der Urteils- und Kategorientafel. *Zeitschrift für philosophische Forschung*, (H. 2), 193-217.

————— (forthcoming). *Urteil und Anschauung: Kants Metaphysische Deduktion der Kategorien*. De Gruyter.

Horstmann, R. P. (1997). Die Funktion der metaphysischen Deduktion in Kants Kritik der reinen Vernunft (1984). *Bausteine kritischer Philosophie. Arbeiten zu Kant, Bodenheim*, 55-78.

Hume, D. (1784). *An Enquiry Concerning Human Understanding*.

Kjosavik, F. (2013). A Synthesis into a Whole which Is not a Synthesis out of Parts. *Kant und die Philosophie in weltbürgerlicher Absicht*, 199-210.

Krüger, L. (1968). Wollte Kant die Vollständigkeit seiner Urteilstafel beweisen?. *Kant-Studien* 59(1-4), pp. 333-356.

Knutzen, M. (1747). *Elementa philosophiae rationalis seu logicae*. Hartung.

- Lewis, J. J. (1991). Synthesis and Category: The Synthesis of the Heterogeneous in Ricoeur and Kant. *Bulletin de la Société Américaine de Philosophie de Langue Française*, 3(3), pp. 183-206.
- Longuenesse, B. (1998). *Kant and the capacity to judge: sensibility and discursivity in the transcendental analytic of the Critique of pure reason*. Princeton University Press.
- (2005). *Kant on the human standpoint*. Cambridge University Press.
- Lu-Adler, H. (2014). Kant on the logical form of singular judgments. *Kantian Review* 19(3), pp. 367-92.
- McDonough, R. (2014). Kant's Emergence and Sellarsian Cognitive Science. *Open Journal of Philosophy*, 4(01), 44-53.
- McDowell, J. H. (2009). *Having the world in view: Essays on Kant, Hegel, and Sellars*. Harvard University Press.
- Paton, H. J. (1936). *Kant's Metaphysic of Experience*. G. Allen & Unwin.
- Proops, I. (2003). Kant's Legal Metaphor and the Nature of a Deduction. *Journal of the History of Philosophy*, 41(2), pp. 209-229.
- Reich, K. (1992). *Die Vollständigkeit der Kantischen Urteilstafel*. Translated by Jane Kneller and Michael Losonsky. Stanford University Press.
- Rosenberg, J. F. (2005). *Accessing Kant: a relaxed introduction to the Critique of Pure Reason*. OUP Oxford.
- Rosenkoetter, T. (2013). A Non-Embarrassing Account of the Modal Functions of Judgment. In *Kant und die Philosophie in weltbürgerlicher Absicht* (pp. 383-394). De Gruyter.
- Sanchez Borboa, S.J.S. (2018). On Kant's Derivation of the Categories. *Kant-Studien*, 109(4), pp. 511-536.
- Schulthess, P. (1981). *Relation und Funktion. Eine systematische und entwicklungsgeschichtliche Untersuchung zur theoretischen Philosophie Kants*. De Gruyter.
- Schulting, D. (2012). *Kant's Deduction from apperception: An Essay on the transcendental deduction of the categories* (Vol. 203). Palgrave Macmillan.
- Sellars, W. (2002). *Kant's transcendental metaphysics: Sellars' Cassirer lectures notes and other*

essays. Ridgeview.

Shabel, Lisa, "Kant's Philosophy of Mathematics", *The Stanford Encyclopedia of Philosophy* (Spring 2016 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/spr2016/entries/kant-mathematics/>.

Smit, H. (1999). The role of reflection in Kant's Critique of Pure Reason. *Pacific Philosophical Quarterly*, 80(2), 203-223.

————— (2000). Kant on Marks and the Immediacy of Intuition. *The philosophical review*, 109(2), 235-266.

————— (2009). Kant on apriority and the spontaneity of cognition. In *Metaphysics and the Good. Themes from the Philosophy of Robert Merrihew Adams*, pp. 188-251.

————— (2019a). Kant's "I think" and the agential approach to self-knowledge. *Canadian Journal of Philosophy*, 49(7), 980–1011.

————— (2019b). Essence, nature, and the possibility of metaphysics. In *Metametaphysics and the Sciences: Historical and Philosophical Perspective*, pp. 38-64.

————— (ms a). *Kant's Theory of Cognition*.

————— (ms b) Cognition, Determination, Understanding.

————— (ms c) Kant's Reply to Hume.

Smyth, D. (2014). Infinity and givenness: Kant on the intuitive origin of spatial representation. *Canadian Journal of Philosophy*, 44(5-6), 551-579.

Strawson, P. F. (1966). *The Bounds of sense: An essay on the critique of pure reason*. Methuen.

Sutherland, D. (2004). The role of magnitude in Kant's critical philosophy. *Canadian Journal of Philosophy*, 34(3), 411-441.

Thöle, B. (2001). Michael Wolff und die Vollständigkeit der kantischen Urteilstafel. In *Kant und die Berliner Aufklärung* (pp. 477-488). De Gruyter.

Van Cleve, J. (2003). *Problems from Kant*. Oxford University Press.

Warren, D. (2013). *Reality and Impenetrability in Kant's Philosophy of Nature*. Routledge.

Watkins, E. (2004). Kant's model of causality: Causal powers, laws, and Kant's reply to Hume. *Journal of the History of Philosophy*, 42(4), 449-488.

————— (2005). *Kant and the Metaphysics of Causality*. Cambridge University Press.

————— (2011). Making Sense of Mutual Interaction. *Kant and the Concept of Community*, 41-62.

Waxman, W. (2013). *Kant's anatomy of the intelligent mind*. Oxford University Press.

Wolff, C. (1740). *Philosophia rationalis sive logica*.

Wolff, M. (1995). *Die Vollständigkeit der Kantischen Urteilstafel Mit Einem Essay Über Freges Begriffsschrift*. V. Klostermann.