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Kant on the Human Standpoint

Béatrice Longuenesse

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KANT ON THE HUMAN STANDPOINT

In this collection of essays Béatrice Longuenesse considers three main aspects of Kant's philosophy, his epistemology and metaphysics of nature, his moral philosophy, and his aesthetic theory, under one unifying principle: Kant's conception of our capacity to form judgments. She argues that the elements which make up our cognitive access to the world – what Kant calls the “human standpoint” – have an equally important role to play in our moral evaluations and our aesthetic judgments. Her discussion ranges over Kant's account of our representations of space and time, his conception of the logical forms of judgments, sufficient reason, causality, community, God, freedom, morality, and beauty in nature and art. Her book will appeal to all who are interested in Kant and his thought.

Béatrice Longuenesse is Professor of Philosophy at New York University. Her numerous publications include *Kant and the Capacity to Judge* (1998).

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BÉATRICE LONGUENESSE

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INTRODUCTION

This volume gathers some of the papers I wrote between 1995 and 2003, namely in the years that followed the publication of my earlier Kant book, first in French (*Kant et le pouvoir de juger*, Paris: Presses Universitaires de France, 1993, hereafter *KPJ*), then in its expanded English version (*Kant and the Capacity to Judge*, Princeton: Princeton University Press, 1998, hereafter *KCJ*). Among the essays written during that period that I did not include in this volume are an essay on Kant and Hegel which belongs in a separate volume devoted to my work on Hegel; essays on self-consciousness and “I” which are part of a work in progress I hope to develop further; and finally a few essays that in one way or another overlap with those included here.

What unifies the essays selected for this volume is their relation to the central theme of my earlier book on Kant: Kant’s conception of what he calls our capacity to judge (*Vermögen zu urteilen*) and its role in our forming an objective view of the world. However, in addition to the role of our capacity to judge in cognition, I now consider its role in moral deliberation and in aesthetic evaluation. Some of the essays have been revised in light of discussions I benefited from since they first appeared. Others, especially the more recent, remain mostly unchanged, except for editorial adjustments necessary to unify references throughout the volume and to tie the different topics together. Two of the essays are translated from the French and appear in English for the first time in this volume.

Beyond their common theme, the essays fall into three main categories, thus the three parts of the book. Part I (“Revisiting the capacity to judge”) contains three essays that were written in response to comments on, and criticisms of, *KCJ*. Part II (“The human standpoint in the Transcendental Analytic”) contains four essays that clarify some of the views I defended in the earlier book, but also significantly expand the explanations I gave on crucial points such as Kant’s argument in the Metaphysical Deduction of the Categories (ch. 4), Kant’s relation to earlier German philosophy (ch. 5), Kant’s defense of the causal principle in the Second Analogy of Experience (ch. 6), or the argument and import of the Third Analogy (ch. 7). Finally, part III (“The human standpoint in the critical system”) expands my discussion of Kant’s view of judgment beyond the Transcendental Analytic of the *Critique of Pure Reason*. I analyze some aspects of the relation between the Transcendental Analytic, the Transcendental Dialectic of the *Critique of Pure Reason*, and the *Critique of Judgment* (ch. 8); Kant’s view of moral judgment and its relation to the conception of judgment expounded in the first *Critique* (ch. 9); and finally, the use Kant makes of his analysis of logical forms of judgment in clarifying the nature of aesthetic judgments in the third *Critique* (ch. 10).

The chapters of this book, having initially been written as independent essays, can be read separately and in any order that best suits the reader’s own interests. Nevertheless, I think it may help to read them in the order in which they are presented here – the book does have its own systematic unity. My hope is that it will provide an easier access to some of the central theses of my earlier book, while also developing them in new directions, progressively unfolding Kant’s view of what I call, borrowing the expression from Kant himself, “the human standpoint” (cf. *Critique of Pure Reason*, A26/B42).¹ Part I provides the general background against which the particular arguments of part II can best be

¹ In quoting the *Critique of Pure Reason* I use the standard references to A and B, meaning the first edition (1781) and the second edition (1787). All other texts of Kant are referenced in the Akademie Ausgabe (AA), with volume and page. Standard English translations are indicated upon first occurrence in footnotes, and in the bibliography. References to the German edition are in the margins of all recent English translations. References to A and B will be given in the main text, all other references will be given in the footnotes. When I refer to titles of chapters or sections in the *Critique*, I use capital letters (e.g. the Transcendental Deduction); when I refer to arguments I do not capitalize (e.g. the transcendental deduction).

I sometimes say “first *Critique*” to refer to the *Critique of Pure Reason*, “second *Critique*” to refer to the *Critique of Practical Reason*, and “third *Critique*” to refer to the *Critique of the Power of Judgment*. All emphases in quotations are Kant’s unless it is otherwise indicated.

understood. Part II follows the systematic order of Kant's argument in the *Transcendental Analytic* (although of course it covers only some of its central themes). Part III builds on the lessons of the *Transcendental Analytic* to illuminate the unity of the critical system and the relation between the different uses of our capacity to judge: theoretical, practical, aesthetic.

"The human standpoint" expounded in the first *Critique* is that standpoint on the world which, according to Kant, is proper to human beings as opposed to non-rational animals, on the one hand, and to what a divine understanding might be, on the other hand. As opposed to non-rational animals, human beings are endowed with what Kant calls "spontaneity," namely a rule-governed capacity to acquire representations that are not merely caused by the impingements of the world, but actively integrated into a unified network, where the ways in which the mind combines representations make it possible to discern when they ought to be endorsed (as veridical) or rejected (as non-veridical). The rules according to which representations are thus integrated are rules for forming judgments, which themselves determine rules of reasoning. The capacity to form judgments according to those rules is thus, according to Kant, what is characteristic of the human mind, as opposed to non-human animal minds.² However, as opposed to what a divine understanding might be, human minds are, like all other animal minds, also passively impinged upon by a reality that is independent of them, which they have not created. Nevertheless, even under that essentially passive, receptive aspect, the human mind, according to Kant, has a peculiar capacity to order in one whole the objects of the representations thus received, and thus to anticipate further representations and the unity in which their objects might stand with the objects of present and past representations. This ordering and locating of individual objects of representations in one whole is made possible by the a priori forms of our receptive capacity: space and time. From the fact that we have such a priori modes of ordering, forms of intuition as

² On the contrast between the cognitive capacities of human beings and of animals, see *Jäsche Logic*, in Immanuel Kant, *Lectures on Logic*, ed. and trans. J. Michael Young (Cambridge: Cambridge University Press, 1992), AAIX, 65. Also *Anthropology from a Pragmatic Point of View*, trans. Mary Gregor (The Hague: Nijhoff, 1974), AAVIII, 154-5, 397, 411n; *Critique of Practical Reason*, trans. Mary Gregor (Cambridge: Cambridge University Press, 1997), AAIV, 12; First Introduction to the *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews, AAxx, 211. Many thanks to Wayne Waxman for having helped me with these references.

well as forms of our capacity to judge (forms of judgments), Kant derives a complex argument to the effect that we also have a priori concepts that have their origin in the understanding alone and nevertheless are true of all objects given to our senses: such concepts are what he calls, borrowing the term from Aristotle, categories.³

In *KCJ* I argued, against standard interpretations, that in order to understand Kant's doctrine of the categories, and in order to understand Kant's argument to the effect that such concepts have applications to objects of experience (i.e. that all objects of experience fall under the categories), one needed to take seriously the origin Kant assigns to these concepts in logical functions of judgment. In chs. 1 and 2 of the present volume I address some of the objections that have been raised against this claim. I have been fortunate in benefiting from the comments of outstanding critics on the occasion of two "author meets critics" sessions at meetings of the American Philosophical Association in the spring of 1999: one at the Pacific Division in Berkeley, the other at the Central Division in New Orleans. Richard Aquila and Michael Friedman were my critics on the first occasion, Henry Allison and Sally Sedgwick on the second. Richard Aquila did not submit his comments for publication. Michael Friedman published his comments in the form of an extensive essay which appeared in *Archiv für Geschichte der Philosophie*. The editors of *Archiv* then offered to publish my response, which has now become (with the addition of some developments I had to cut to respect length limitations in *Archiv*) ch. 2 in this volume. Henry Allison's and Sally Sedgwick's comments, as well as my response to them, were published in one and the same issue of *Inquiry*, and my response has now become ch. 1 in this volume. In both chapters I give extensive references to the papers I respond to. But these chapters also provide an independent, self-standing overview of what I take to be most original – and thus also, no doubt, most controversial – about my interpretation of Kant's views in the first *Critique*.

³ I discuss in detail the contrast Kant draws between our own, discursive understanding and what a divine, intuitive understanding might be in the paper on Kant and Hegel mentioned at the beginning of this introduction (see above, p. 1): "Point of view of man or knowledge of God: Kant and Hegel on concept, judgment and reason," in Sally Sedgwick (ed.), *Kant and German Idealism: Fichte, Schelling, Hegel* (Cambridge: Cambridge University Press, 2002). The title of this paper inspired the title of the present volume, and the paper was to be its concluding chapter. For reasons of length, I agreed to transfer that paper to a different volume devoted to Hegel's *Science of Logic*. The title still seemed apt for the present book.

Two objections are worthy of special notice. The first, raised by Henry Allison (discussed in ch. 1), is that by insisting as I do on their origin in logical functions of judgment, I end up depriving Kant's categories of any role of their own, and instead substitute for them the corresponding logical forms of judgment. The second, raised by Michael Friedman (discussed in ch. 2), is that by giving as much importance as I do to Kant's logical forms of judgment, which are based on the traditional, Aristotelian subject–predicate form, I end up downplaying what is most novel about Kant's transcendental logic – its relation to the Newtonian model of mathematical principles of natural science – and instead tend to attribute to Kant an ontology of nature that is fundamentally Aristotelian in inspiration. Although the two objections were raised independently of one another, I am struck by their convergence. Both concern the respective weights of Aristotelianism and of the new, mathematical science of nature in Kant's epistemology and in his ontology (albeit an ontology of appearances, things as they appear to us). Now in my opinion what is most striking about Kant's view is that he indeed makes use of an Aristotelian subject–predicate logic, but in such a way as to ground an ontology of appearances that is decidedly non-Aristotelian. This is of course made possible by the appeal to the forms of intuition as being what alone makes possible the representation of individual objects, identified and re-identified only by way of their relations in space and time and the universal correlation between their respective states and changes of states. Only insofar as they determine what Kant calls the "unity of synthesis" according to forms of intuition do logical functions of judgments become categories, concepts guiding the combination of what is given to sensible intuition so that it can eventually be thought under (empirical and mathematical) concepts, combined according to the logical forms of judgments whose table Kant sets up in the Transcendental Analytic of the first *Critique*. Both Allison's and Friedman's challenges have helped me to make clearer (at least for myself, and I hope for others as well) my interpretation of Kant's view, as have Sally Sedgwick's questions concerning the ways in which one should understand the a priori character of the categories.

Allison's and Sedgwick's comments also converge in an interesting way with the questions raised by Michel Fichant, which I address in ch. 3. In 1997 Michel Fichant published in the French journal *Philosophie* the first translation into French of a text which, to my knowledge, is to this day not translated into English: Kant's essay, unpublished in his lifetime, "Über Kästner's Abhandlungen," "On Kästner's articles." Fichant also

offered an extensive commentary of Kant's essay on Kästner in the course of which he took me to task for maintaining that according to Kant, space and time as forms of sensibility, namely as forms in which what is given to our senses is ordered and related, depend on spontaneity, or more precisely on what Kant called the "affection of sensibility by the understanding." In emphasizing this point, Fichant warned, I seem to bring Kant perilously close to his German Idealist successors, who denied any validity to the Kantian dualism of receptivity and spontaneity, of passivity and activity, in our representational capacities. But I do not think I in fact cross that line, although I do argue that space and time are each represented as one only if they are brought under what Kant calls the "unity of apperception," and thus the understanding. In ch. 3, I revisit this point and explain why it is decisive to Kant's argument in the Transcendental Deduction of the Categories.

The stage is thus set for part II of the book. Here one of my goals is to correct what I think may have been a one-sided understanding of the view I defended in *KCJ*. Even the most careful readers of that book have tended to focus their comments on what I say of the logical forms of judgment and their role in analysis (or the process of comparison, reflection, and abstraction by which, according to Kant, we form any kinds of concepts) and have devoted comparatively less attention to my interpretation of Kant's notion of synthesis and its role in constituting what I just described as the "human standpoint," according to the Transcendental Analytic of the *Critique of Pure Reason*. This imbalance may have been due partly to the structure of *KCJ*: the logical forms of judgment, and their role in analysis or reflection on the sensible given, are expounded in great detail in part II of the book, synthesis according to the categories is explained only in part III. In the present book, in each of the four chapters of part II, I jointly present, in connection with a particular point of Kant's argument in the Transcendental Analytic, Kant's view of general logic and the role of logical forms of judgment, and Kant's view of transcendental logic and the way those logical forms, related to forms of sensibility, account for the role of a priori concepts of the understanding in guiding the syntheses that make possible any representation of objects.

Chapter 4 was originally written for the new edition of the *Cambridge Companion to Kant*, edited by Paul Guyer. In this chapter I sketch out a history of Kant's question, "How do concepts that have their origin in the workings of our minds apply to objects that are given?" and I explain how Kant came to think he could find the solution to that problem in

investigating the ways in which our discursive capacity (our capacity to form concepts, which depends on spontaneity) and our intuitive capacity (our capacity to form singular representations immediately related to objects, which depends on sensibility or receptivity) work together. I then closely follow the structure of Kant's argument in ch. 1 of the *Transcendental Analytic*, "the Leading Thread for the Discovery of all Pure Concepts of the Understanding," in which Kant justifies his claim that pure concepts of the understanding have their origin in what he calls "logical functions of judgment," and prepares the ground for the central argument of the first *Critique*, the *Transcendental Deduction of the Categories*.

Kant's argument in the *Leading Thread* depends on the relation he lays out between analysis and synthesis: analysis of sensible, individual representations into concepts, and of less general ("lower") concepts into more general ("higher") concepts; and synthesis of individual elements (entities or parts of entities) into wholes (what Kant calls "unified manifolds"). The latter notion has been the object of much suspicion in the past forty years, especially under the influence of Strawson's claim that it belongs to the "imaginary subject of transcendental psychology."⁴ For Strawson, taking seriously the role assigned to synthesis in Kant's argument is endorsing the worst kind of armchair psychology and losing track of what is truly groundbreaking in Kant's *Critique of Pure Reason*: the invention of a new kind of philosophical argument, which Strawson calls transcendental argument, in which some general features of objects (and thus some general concepts, or categories, under which they are thought or known) are proved to be necessary conditions for the possibility of ascribing one's representations to oneself, and thus for any experience at all. Transcendental arguments are thus a special kind of anti-skeptical argument, in which no appeal at all needs to be made to dubious psychological notions such as Kant's notion of a transcendental synthesis of imagination, supposed to condition any representation of object.

Interestingly, it is not just Kant's notion of synthesis that Strawson rejects. It is also Kant's table of logical functions of judgment, which Strawson evaluates in the light of contemporary truth-functional logic. This being so, Strawson's charge against Kant is really not just one of "armchair psychology." For Strawson, the kind of logical argument Kant makes in support of his doctrine of the categories (their nature, and the

⁴ P. F. Strawson, *The Bounds of Sense: an Essay on Kant's Critique of Pure Reason* (London: Methuen, 1966), p. 32.

grounds we have for asserting their relation to objects existing independently of our minds) is also irrelevant. Indeed its results are “so meager as to render almost pointless any critical consideration of the detail of Kant’s derivation of the categories from the Table of Judgments.”⁵

Now my own claim is that indeed Kant’s table of logical forms has no justification at all if we read it in the light of contemporary truth-functional logic and first-order predicate logic. Nor does the relation Kant goes on to draw between forms of judgment as forms of analysis, and what he calls “schemata” of the categories as forms of the unity of synthesis. To understand this relation, one needs to consider the early modern version of logic Kant is working with, and the notion of judgment he has himself defined. I defended these points in *KCJ*. What I did not do is provide a step-by-step analysis of the chapter in which Kant expounds and defends the central thesis of his metaphysical deduction of the categories: the view that logical forms of judgment provide a “leading thread” for the establishment of a table of categories. Such an analysis is what I now offer in ch. 4. At the end of the chapter I also offer some suggestions about how we might think of the relation between Kant’s logic, and the role Kant assigns to it in his transcendental project, and later developments in logic and natural philosophy. The same issue is taken up again later in the book, e.g. at the end of ch. 7, where I suggest again that Kant’s limited notion of logic (a science of the rules of concept subordination, in which objects and their relations have no place) is to be kept in mind if one is to understand its role in Kant’s system and its relation to post-Fregean logic and ontology.

In ch. 5, I consider an issue that played a decisive role in the development of Kant’s transcendental philosophy: Kant’s criticism of his rationalist predecessors’ “proof” of the “principle of sufficient reason,” and his argument for his own proof of the same principle. I follow the development of Kant’s view from the pre-critical *New Elucidation of the Principles of Metaphysical Cognition* (1755) to the *Critique of Pure Reason* (1781). What initially intrigued me was Kant’s statement that his argument for the universal validity of the causal principle in the Second Analogy of Experience provided precisely the proof of the principle of sufficient reason that his predecessors had been unable to provide. In investigating Kant’s relation to his rationalist predecessors from the pre-critical writings to the *Critique of Pure Reason*, I discovered that even in his

⁵ *Ibid.*, p. 82.

earliest texts what was original about Kant's approach was his defining the notion of reason or ground (*ratio, Grund*) in relation to propositions. Whereas for his rationalist predecessors the notion of reason was primarily a metaphysical one (and the principle of sufficient reason stated that nothing is, or comes to be, or exists, without a reason or ground for its being, or coming to be, or existing), for Kant the notion of reason or ground is primarily a logical one. In his formulation, the principle of sufficient reason states that no proposition is true without there being a reason or ground for its truth.

What is characteristic of Kant's pre-critical period is that he thinks that this principle of sufficient reason of propositions directly maps the way things are: just as a proposition is true only if there is a reason for its being true (a principle for which Kant thinks he has a proof), a state of affairs obtains, or comes to be, or a thing comes into existence, only if there is a reason or ground for the state of affairs' obtaining, or coming to be, or a thing's coming to exist. But in the critical period, what Kant argues is that our capacity to order states of affairs and individual entities in time depends on our capacity to relate the truth of propositions to the reasons or grounds for their being true. So now it is not simply assumed that logical relations (relations between propositions) perfectly map real relations (relations between states of affairs). Rather, our discursive ability to think logical relations, once related to the forms of our intuition (and here, more specifically, to the form of time), allows us to introduce into what is given according to these forms the kinds of ordering that will allow us to recognize things, their states, and their changes of states or alterations: to order them in time.

Chapter 6 is directly connected to the argument of ch. 5. Here I analyze Kant's argument in the Second Analogy of Experience. Since I have already devoted a long chapter in *KCJ* to all three Analogies, one might wonder what remains for me to say on the issue. First, I relate my understanding of Kant's argument to recent prominent interpretations of the Second Analogy. Second, I refine my analysis of the relation between Kant's logical argument and his account of time determination. Finally, I now offer what I believe to be a more complete account of the ways in which Kant calls upon the unity and continuity (denseness, in contemporary vocabulary) of time and space, as objects of our a priori intuition, to complete his argument in the Second Analogy. If I am right in thinking that these features of space and time play a decisive role in completing the argument, it should come as no surprise if challenges against Kant's view of space and time as a priori forms of appearances

are generally paired with challenges against the strong version of the causal principle I take Kant to be defending in the Second Analogy of Experience (all events in nature are subject to strictly necessary causal laws). This is a point that would certainly merit further investigation.

Just as in ch. 6 I revisit my account of the Second Analogy, in ch. 7 I revisit and expand my account of the Third Analogy of Experience and of Kant's many-faceted category of community. I argue that the category of community, rather than that of causality, should be seen as the central category for the whole critical system, from the Third Analogy of Experience in the first *Critique* to the community of rational agents in the second *Critique* and *Metaphysics of Morals*, to the *sensus communis* that grounds aesthetic judgment in the third *Critique*.

This provides the transition to part III of the book, where I consider Kant's view of the human standpoint in the critical system as a whole.

In ch. 8, I analyze the "principle of complete determination" that Kant introduces at the beginning of the chapter on the Transcendental Ideal, in the Transcendental Dialectic of the *Critique of Pure Reason*. My initial motivation in undertaking this analysis was my surprise at the way Kant introduces this principle. According to Kant, this principle is at work in generating the rationalist idea of an *ens realissimum* (most real being) represented as the source of all reality in finite things. One might think that the illusion Kant denounces in the idea he also denounces in the principle on which the idea depends. But at the beginning of the chapter on the Transcendental Ideal, the principle is presented without any kind of disclaimer on Kant's part. My initial question was: is there a critical, legitimate version of the principle, to which Kant claims one can retreat once its illusory, illegitimate interpretation is properly undermined on the basis of the critical standpoint established in the Transcendental Analytic? I argue that indeed there is. Moreover, laying out the critical version of the principle brings to light an interesting connection between notions of systematicity at work in the Transcendental Analytic, in the Transcendental Dialectic, and in the First Introduction to the third *Critique*.

I argue that Kant's claims concerning the unavoidable and epistemically indispensable character of what he calls the illusions of reason, especially the illusion carried by the Transcendental Ideal, are not well supported. I claim that the appendix to the Transcendental Analytic (On the Amphiboly of Concepts of Reflection), together with the account of systematicity in the First Introduction to the *Critique of Judgment*, provide enough tools to dispel the purported inevitability of the theological illusion expounded in the Transcendental Ideal. One way

of characterizing my work in this chapter is thus to say that I defend Kant's "human standpoint" as laid out in the Transcendental Analytic of the *Critique of Pure Reason* and the *Critique of Judgment* against what I take to be the unnecessary concessions (however cautious and limited these are) that Kant makes, in the Transcendental Dialectic, to a view where the human standpoint is defined in necessary relation to (albeit also in contrast with) divine understanding and agency.

Chapters 9 and 10 are devoted respectively to Kant's views of moral judgment and aesthetic judgment. For each of these chapters, my initial question was whether the logical forms of judgment laid out in the first *Critique* have any relevance at all for Kant's investigations in the other two *Critiques*. I argue that they do, and that examining how and why this is the case yields illuminating results concerning Kant's substantive views of morality and aesthetic experience.

In ch. 9, I consider moral judgments. It might seem that the issue of judgment and its forms is not especially central to Kant's view of morality, since after all, Kant's most insistent claim is that moral decision and moral evaluation are a matter of the determination of the will by reason (*Vernunft*). It thus seems that Kant's view of reason is what needs to be investigated if one's concern is to investigate the role of human beings' spontaneity in the moral determination of the will. However, the striking fact is that Kant does make use of the logical forms of relation and modality defined in his table of judgments, in characterizing the different kinds of imperatives reason sets to itself in determining the will. It is therefore worth asking what role these forms play in reason's moral determination of the will. It turns out that investigating the nature of practical reason in this way helps us better understand how the role of the unconditioned, categorical imperative, is to sift through the rules depending on conditioned, hypothetical imperatives, so as to determine which of these rules still stand (are permissible), and which of them collapse, in the light of the unconditioned demand of the categorical imperative. It thus appears that even in moral determination, spontaneity and sensibility are inseparably intertwined. That our notions of the morally good are rationally determined means that all sensible motivations are ordered under an original principle that is independent of them: the unconditioned command of the categorical imperative. There are still important differences, of course, between the theoretical and the practical use of reason. In its theoretical use, reason depends on sensibility and understanding for the presentation of the objects of cognition. In its practical use, reason defines its own object: the good,

by its conformity to the categorical imperative. Nevertheless, this very general characterization of the good finds itself instantiated, indeed realized by us, only in relation to emotions and desires that are characteristic of human beings as pathologically affected. My claim is thus that the very same duality that characterizes the human standpoint in cognition also characterizes it in moral determination. Indeed this duality is the source of the well-known difficulties Kant encounters when it comes to answering questions about what morality, as he defines it, commands us to do. I examine a few of these difficulties at the end of ch. 9.

Finally, in ch. 10 I consider Kant's view of aesthetic judgment. In analyzing the features of our judgments of the beautiful, Kant makes systematic use of the forms he has laid out in the first *Critique*. My claim here is that the use he makes of these forms is quite unusual, in at least two ways. First, although Kant's initial investigation concerns a judgment about an object ("this X is beautiful"), it turns out that the characterization Kant gives of the logical form of that judgment seems to address primarily not a descriptive judgment about the object, but a prescriptive, normative judgment about the judging subjects ("all judging subjects ought to judge the object to be beautiful"). Second, the aesthetic judgment, with the peculiar feature I just described, is grounded on an immediately experienced feeling, not (like theoretical judgment) on the recognition of a synthesized intuition as falling under a concept or (like moral judgment) on the determination of the will by an a priori law of reason, the categorical imperative. Investigating these two peculiar features of aesthetic judgment reveals in human beings a sensitivity to their community as human beings, which has the same a priori grounds as their capacity to develop an objective view of the world, and their capacity to develop moral motivation. But what distinguishes aesthetic judgment from theoretical and moral judgment is its responsiveness to feeling rather than to synthesis of sensible intuition according to a rule, or determination of the faculty of desire according to the categorical imperative of reason.

There is a missing link in the account I offer here of Kant's conception of the "human standpoint." I say little about "I" in "I think" or about Kant's distinction between empirical and transcendental self-consciousness, in the first *Critique*. Nor do I offer any comment on the distinction between "I" as the subject of the categorical imperative ("I ought never to act except in such a way that I could also will the maxim of my action to be a universal law") and what Kant calls, in *Groundwork of the Metaphysics of Morals* and elsewhere, the "dear self." I do offer some comment on the

combination, in Kant's account of aesthetic judgment, of what is most individual (feeling) and what is universally shared, or apt to be shared: what Kant calls *sensus communis*, or sense of the universal community of human beings. But Kant's view of "I" in all three areas of investigation, in particular his account of persons in the first and second *Critiques*, and what this account has to offer in light of contemporary investigations of self-reference and personal identity, will have to be the object of another investigation.

PART I

REVISITING THE CAPACITY TO JUDGE

KANT'S CATEGORIES, AND THE CAPACITY TO JUDGE

Both Sally Sedgwick and Henry Allison focus their comments¹ on the central thesis of my book (*KCF*): we should take more seriously than has generally been done Kant's claim that a "leading thread" can be found from some elementary logical forms of judgment to a system of categories, or "pure concepts of the understanding." Both of them, however, express the worry that in stressing the role of the logical forms of judgment in Kant's argument not only in the *Metaphysical Deduction of the Categories* (Kant's argument for the derivation of the categories from logical forms of judgment) but also in the *Transcendental Deduction* (Kant's proof of the objective validity of the categories, or their a priori applicability to all objects of experience), I end up losing track of the categories themselves. "Where have all the categories gone?" asks Allison. And Sally Sedgwick: how is the idea that categories are "generated" compatible with Kant's insistence on their apriority? Given the close connection between their discussions, I shall not attempt to answer each of them separately. Rather, I shall weave my way from one to the other and back again, in considering two main issues: How should we understand

¹ Henry Allison, "Where have all the categories gone? Reflections on Longuenesse's reading of Kant's *Transcendental Deduction*," *Inquiry*, vol. 43, no. 1 (2000), pp. 67–80. Sally Sedgwick, "Longuenesse on Kant and the priority of the capacity to judge," *Inquiry*, vol. 43, no. 1 (2000), pp. 81–90.

the relationship between categories and logical forms of judgment? Do the categories end up playing no role at all in my account of the two main steps of the B Transcendental Deduction of the Categories?

Categories and logical forms of judgment

The understanding as a capacity to judge

I use the expression “capacity to judge” to translate the German *Vermögen zu urteilen*. Kant uses this expression when he introduces his table of logical functions of judgment in the Transcendental Analytic of the *Critique of Pure Reason*. There he justifies defining the understanding as a capacity to judge in the following way. The understanding is a capacity for concepts. But we form concepts only for use in judgments. And all forms of judgment govern possible forms of syllogistic inference. The understanding, then, or the intellect as a whole² – our capacity to form concepts, to combine them in judgments, and to infer true judgment from true judgment in syllogistic inferences – is nothing other than a “capacity to judge” (*Vermögen zu urteilen*) (A6g/B94).³

I want to stress several important points here. First, this *Vermögen zu urteilen* is different from the *Urteilstkraft*, or power of judgment, that Kant defines as the capacity to subsume particular instances under general rules. Either we have the rule, and we look for instances of the rule (this is the “determinative” use of the power of judgment, for which the canonical example is of course the subsumption of given appearances under the categories). Or we have particular objects and we look for the rules under which they might fall (this is the “reflective” use of the power of judgment, as described in the Introduction to the third *Critique*).⁴ But

² “Intellect as a whole” because it includes the capacity for concepts (i.e. the understanding in the narrow sense), the capacity for subsuming objects under concepts, or power of judgment (*Urteilstkraft*), and the capacity for syllogistic inferences, or reason. These three aspects of the exercise of the intellect, which correspond to the three main chapters in logic textbooks of the time (1 – concepts, 2 – judgments or propositions, 3 – inferences) are all made possible by the fact that the intellect is a capacity to judge, a capacity to form judgments according to the elementary forms laid out in Kant’s table.

³ In translating *Vermögen zu urteilen* as *capacity to judge*, I differ from Kemp Smith (Kant’s *Critique of Pure Reason*, New York: St. Martin’s Press, 1965) and Guyer and Wood (Kant’s *Critique of Pure Reason*, Cambridge: Cambridge University Press, 1998), who translate it as “faculty of judgment.” I prefer “capacity to judge” because it avoids the dubious faculty-psychology and stresses instead mental capacities to act in determinate ways (in ordering representations).

⁴ See AAv, p. 179; AAxx, p. 211.

defining the intellect, in all its guises (concept formation, subsumption of instances under concepts or rules, syllogistic inference) as a capacity to judge is explaining what it is about the understanding that makes it capable of all the functions described above, including forming rules in the first place. According to Kant, all of these can be traced back to the fact that the intellect is a capacity to combine concepts (universals) in the elementary ways (according to the elementary forms) described in Kant's table of logical functions, or forms, of judgment.⁵

Allison objects to my privileging in this way Kant's description of the understanding as a capacity to judge. Kant, he says, defines the understanding in many other ways as well: as a faculty of concepts, as a faculty of rules, as spontaneity, as apperception. I agree. I also agree that the characterization of the understanding as a *Vermögen zu urteilen* belongs specifically to the context of the metaphysical deduction of the categories. But this does not make it any less important. For what it provides is a definition of the original capacity from which all aspects of the understanding are developed. Indeed from the argument I just recounted it follows that concepts and rules are generated by the understanding as a capacity to judge. The understanding as spontaneity, namely as the activity of producing rule-governed, reason-giving combinations of representations, is an activity of the *Vermögen zu urteilen*. And in the Transcendental Deduction – more clearly in B than in A – Kant argues that the identity and unity of self-consciousness (= apperception) is the identity and unity of an act of judging, according to the forms Kant has expounded in his table of logical functions of judgment.⁶ So

⁵ As I understand it, if there is a distinction to be made between function and form of judgment in Kant's usage of the terms, it should be a distinction between a rule-governed act of combining representations (the function of judgment, or judging) and its result (the form of judgment, namely the ways in which concepts are ordered in a judgment – a proposition). At A70/B95, Kant writes: "If we abstract from all content of a judgment and consider the mere form of the understanding [*Verstandesform*] in it, we find that the function of thought in the judgment can be brought under four titles, each of which contains three moments under it." Cf. A68/B93: "I call function the unity of the act of ordering distinct representations under a common representation." On this point, see *KCJ*, p. 78. Note also that the point I am making in emphasizing that for Kant, understanding as a whole is a capacity to judge, is broader than the point I made in the introduction to *KCJ* (pp. 7–8) according to which the *Urteilkraft* could be understood as the actualization of the *Vermögen zu urteilen* as a capacity, or an as yet unactualized potentiality to form judgments. The point I am stressing now is that all aspects of the understanding (the early modern's *intellectus*) as a capacity, namely the capacity to form concepts, the capacity to subsume objects under concepts, the capacity to form syllogistic inferences, are imbedded in this original characterization of the understanding as a capacity to judge.

⁶ On this point, see *KCJ*, pp. 64–72.

although I would certainly not claim that characterizing the understanding as a *Vermögen zu urteilen* is sufficient to account for all aspects of the understanding as expounded in the *Critique of Pure Reason*, let alone the second and third *Critiques*, I am claiming that all aspects of the understanding, in order to be properly understood, need to be traced back to this original capacity to form judgments.

Now, reducing the intellect to a capacity to judge (specified according to the elementary forms described in the table) is an extraordinarily important move to make. It is Kant's response to the classical question: are there innate representations? For Kant, there are no innate representations, but there are innate capacities – intellectual/discursive capacities of concept forming and ordering, sensible/intuitive capacities of distinguishing and ordering individuals. The cooperation of these two capacities in acts of judging is, according to Kant, what makes us capable of recognizing the numerical identity of individual objects through time as well as of recognizing empirical objects under concepts of natural kinds. Both capacities rest on the fact that the cooperation of the understanding, as a capacity to judge, and sensibility, as a receptivity characterized by specific forms or modes of ordering, generates categories according to which we can represent the numerical identity of objects and reflect them under concepts. I will return in a moment to this issue of the “generation” of the categories.

In *KCJ*, I have analyzed in great detail Kant's conception of logical forms as expounded in his table of logical forms of judgment. My purpose in doing this was to understand why he thought that just these forms of discursive thought were minimally necessary for any recognition of objects under concepts to occur. It is in this context that I have talked about an “objectifying function” of the logical forms of judgment. Allison agrees with me on this point, and he also agrees about the caution one should exercise in interpreting the point: it does not mean, of course, that for Kant any judgment is true. What it does mean is that the logical form of a judgment is what makes a judgment capable of truth or falsity, because it is that by virtue of which the judgment expresses the relation of our representations to independently existing objects. However, Allison also thinks that, in my account, the forms of judgment end up “usurping the objectifying function usually assigned to the categories.” But this is not so. What I say – in the very passage Allison quotes in support of his claim – is that only in the light of the objectifying function of the logical forms of judgment can we also understand that of the categories themselves.⁷

⁷ See *KCJ*, p. 12, referenced in n. 2 of Henry Allison's comments: see “Categories,” p. 79.

What does this mean, and what is the specific “objectifying” function of the categories, as distinct from that of the logical forms of judgment? Kant answers this question in the section of the *Transcendental Analytic* that immediately follows the table of logical forms of judgment and introduces the table of categories. The same function, he says, that gives unity to concepts in judgment also gives unity to the mere synthesis (or combination) of representations in intuition. The categories express just those forms of unity of synthesis of representations in intuition (A79/B105). So the logical forms of judgment are forms of the unity of the combination of concepts in judgment. The categories “universally represent” forms of the unity of the combination of representations in intuition. What they add to the logical forms of judgment is thus the unity of intuitions under the latter. But they are concepts of a synthesis of intuition achieved by the very same function that unites concepts in judgments: the function of the understanding, namely of the capacity to judge, *Vermögen zu urteilen*.

The logical forms of judgment are forms of analysis, in the peculiar sense Kant gives to this term, where analysis does not mean primarily analysis of concepts (although it also means that), but analysis of a sensible given in order to form concepts (cf. A76/B102). The categories, on the other hand, express forms of synthesis of the sensible given. There is, admittedly, something puzzling about the fact that forms of synthesis are supposed to originate in forms of analysis. Allison expresses just such puzzlement when he says: “I fail to see how forms of analysis (the logical forms of judgment) might be equated with forms of synthesis (the categories).”⁸ But actually this tells only part of the story. The whole story is this: it is insofar as they are themselves forms of synthesis (forms of synthesis or combination of concepts) that forms of judgment are also forms of analysis (analysis of the sensible given with a view to forming concepts of objects to be combined – synthesized – in judgments). This is why Kant writes in the section of the *Metaphysical Deduction* cited above:

The same understanding, therefore, and indeed by means of the very same actions through which in concepts, by means of the analytical unity, it brought about the logical forms of a judgment, also brings, by means of the synthetic unity of the manifold in intuition in general, a transcendental content into its representations, on account of which they are

⁸ Allison, “Categories,” p. 72.

called pure concepts of the understanding that pertain to objects *a priori*, a point that could not be derived from general logic. (A79/B105)

“By means of analytic unity” means: by means of a unity reached by way of analysis. Judgment is a synthesis (of concepts) by means of analysis (of the sensible given). Categories are concepts of the synthesis of intuition necessary for the analysis of this same intuition that allows concepts of objects to be formed and synthesized in judgments. So, if you like, the full process is: synthesis (of intuition) for analysis (into concepts) for synthesis (of these concepts in judgment). The categories universally represent the unity of the original synthesis of intuition for analysis for synthesis (of concepts). I think Sally Sedgwick may be missing this point when she attributes to me the view that “the kind of unity necessary for combining representations in judgment [Kant] calls ‘analytic unity’” or again when she says that analytic unity is “the unity which combines concepts into the various forms of judgment,” as opposed to the synthetic unity that “must be produced in the sensible manifold before any such combination of concepts can occur.”⁹ Kant’s view, as I understand it, is that the combination of concepts is itself synthetic unity. It is synthetic unity (of concepts) obtained by means of analytic unity (namely by means of the analytic unity of consciousness that attaches to all common concepts: see B134n).

The difficulty Allison points out when he says he “fails to see” the relation between analysis and synthesis as I tried to outline it is a very important one and has weighed heavily on the reception of Kant’s critical philosophy. To name only one example, this difficulty motivated Hermann Cohen, the founder of the Marburg neo-Kantian school, to dismiss Kant’s metaphysical deduction of the categories altogether and instead to read the *Critique of Pure Reason* in backward order, from the System of Principles, and even from the *Metaphysical Foundations of Natural Science*, to the table of the categories, dismissing Kant’s argument about logical forms and categories altogether. He could make no sense at all of the argument about synthesis and analysis, in part because he thought that when Kant talked about “analytic unity” he meant analytic judgments. Then the whole argument of the metaphysical deduction became, indeed, incomprehensible.¹⁰ One of the first to correct the

⁹ See Sedgwick, “Priority,” pp. 81–2.

¹⁰ See Hermann Cohen, *Kants Theorie der Erfahrung*, 3rd edn (Berlin: Bruno Cassirer, 1918), pp. 242–5. I have given a more detailed account and criticism of Cohen’s view in the French version of my book: see *KPJ*, pp. 92–5. In the English version, the reference to Cohen’s mistake appears only in a footnote: see *KCJ*, p. 86, n. 10.

error was a Marburg Kantian, Klaus Reich, in his groundbreaking work, *Die Vollständigkeit der Kantischen Urteilstafel*. However, because Reich's effort to revive Kant's argument in the metaphysical deduction was flawed in very serious ways, it did not gain very much influence.¹¹ Nowadays, as neo-Kantianism is attracting renewed interest in Kant studies, I suggest that the least we can do is try to learn from its strengths but not repeat the errors that cost us, to this day, an absolutely central aspect of Kant's whole array of critical arguments.

Now, the relationship I just outlined between synthesis and analysis (for synthesis) should help me clarify what I mean when I say that the categories, in Kant's account, have a role to play at both ends of the cognitive process.

The categories "at both ends": synthesis and subsumption

When, in the well-known letter to Herz of February 1772, Kant raises the difficulty of understanding how it is possible for a priori concepts to be applicable to objects that are given, he contrasts this difficulty with the absence of any such problem where mathematical concepts are concerned. In their case, he says, no such problem occurs for they "generate the representation of their object as magnitude, by taking the unit several times." But how could the same be done when we were dealing not just with magnitudes but with qualitatively determined, empirical things?¹² In *KCJ*, I have suggested that this contrast becomes in fact part of the clue to the solution: some way has to be found to explain how the categories, just like geometrical or arithmetical concepts, might be concepts under the guidance of which the very representation of the objects thought under them might be generated. This is precisely what is indicated by their definition, in §14 of the Transcendental Deduction, as "concepts of an object, by means of which the intuition of the object is considered as *determined* with respect to a logical function of judgment" (B128).

¹¹ Cf. Klaus Reich, *Die Vollständigkeit der Kantischen Urteilstafel* (Berlin: Richard Schoetz, 1932); Engl. transl. J. Kneller and M. Losonsky, *The Completeness of Kant's Table of Judgments* (Stanford: Stanford University Press, 1992). Reich's book has been subjected to close scrutiny in recent studies of Kant's table of judgments. See Reinhard Brandt, *Die Urteilstafel. Kritik der reinen Vernunft A67–76/B92–201* (Hamburg: Felix Meiner Verlag, 1991); Engl. trans. Eric Watkins, *The Table of Judgments: Critique of Pure Reason A67–76/B92–201* (North American Kant Studies in Philosophy, 4 [1995]). And Michael Wolff, *Die Vollständigkeit der kantischen Urteilstafel. Mit einem Essay über Freges "Begriffsschrift"* (Frankfurt-am-Main: Vittorio Klostermann, 1995).

¹² See AAx, p. 131.

This characterization of the categories means two things. (1) To have a category is to have a rule for ordering sensible manifolds (and for us human beings, this means manifolds of spatiotemporal elements) in such a way that they can be reflected under (empirical) concepts of objects according to logical functions of judgment. For instance, to have the category of substance is to have the rule: look for something that remains permanent while its properties change. To have the category of cause is to have the rule: look for something real that is such that whenever it exists (“is posited”) something else follows. (2) To have a category is to have a concept under which we can think an object as “in itself determined” with respect to a logical function of judgment.

Under the first description, categories guide synthesis. Under the second description, objects are subsumed under them. These are the “two ends” of the cognitive process I mention in my book: first synthesis (the categories are rules for synthesis); then subsumption (as any other concept, categories are “universal and reflected representations” under which objects are subsumed).

I have suggested that these two roles of the categories are apparent in Kant’s explanation of the difference between judgments of perception and judgments of experience, in the *Prolegomena*.¹³ Consider Kant’s example of a judgment of perception that eventually becomes a judgment of experience. “If the sun shines on the stone, then the stone grows warm” is a judgment of perception. “The sun warms the stone” is a judgment of experience. How do we form judgments of perception, and how do we get from judgments of perception to judgments of experience? Kant’s answer is that first we perceive the repeated conjunction of light of the sun and warmth of the stone. Then we form the hypothetical judgment: “If the sun shines on the stone, then the stone grows warm.” And finally we come to the conclusion that light of the sun and warmth of the stone are “in themselves determined” with respect to the hypothetical form of judgment: the connection exists not just “for me, in the present state of my perception” but “for all, always.” It is not a “mere logical connection of perceptions” but a connection in the objects themselves. We then subsume the logical connection under the “concept of an object, by means of which its intuition is determined with respect to the logical form of hypothetical

¹³ *Prolegomena to any Future Metaphysics that will be able to come forward as science*, ed. and trans. Gary Hatfield (Cambridge: Cambridge University Press, 1997; rev. edn 2004). For the distinction between judgments of perception and judgments of experience, see §§18–20, AAIV, pp. 297–302.

judgment" (the concept of cause) and we say: the sun warms the stone. This is the subsumption under the category. It occurs at the end of the process that goes through the stages just described: perception of temporal conjunction of events, reflection of this conjunction according to the hypothetical form of judgment, finally subsumption of the hypothetical connection under the concept of cause.¹⁴

What about the first use, the synthesis according to the categories? Where does it come into this picture? In the *Prolegomena*, Kant asks: what is it that allows me to subsume what is initially a mere logical connection of my perceptions under the category of cause? And he answers: I have explained this in the *Critique of Pure Reason*.¹⁵ Now what he has explained in the *Critique of Pure Reason*, as far as the concept of cause is concerned, is that the very experience of an objective succession is possible in the first place only under the supposition that there is "something upon which it follows, according to a rule." In other words, the experience of an objective succession is possible only under the presupposition that objects are "in themselves determined with respect to the logical function of hypothetical judgment," namely subsumable under some concept of causal connection. This is how the concept of cause – the "concept of an object, by means of which its intuition is considered as determined with respect to the logical form of a hypothetical judgment" – guides the synthesis of our perceptions for the experience of an objective succession. This synthesis eventually makes possible the analysis of the repeated experience into a hypothetical judgment. If we add to the empirically tested hypothetical judgments the anticipations made possible by the application of mathematical methods, in the context of the unity of experience as a whole (the unity of our experience of appearances in one space and one time), we eventually come to the conclusion that a particular connection of empirical events is "in itself determined with respect to the form of hypothetical judgment." That is to say, an event is "in itself determined" (as an empirically given event) under the antecedent, the other is "in itself determined" (as an empirically given event) under the consequent of a hypothetical judgment – and in thinking this we subsume the connection of the two events under the concept of cause.¹⁶

¹⁴ See *Prolegomena*, §20 n, AAiv, p. 301.

¹⁵ See *Prolegomena*, §22, n. 15, AAiv, p. 305n.

¹⁶ For a detailed analysis of this process, see *KCJ*, ch. 7, pp. 167–80, and ch. 11, pp. 355–75. See also ch. 2 in this volume, pp. 58–62 and ch. 6, especially pp. 172–6.

I believe there is a misunderstanding when Allison attributes to me the view that categories play no role at all in judgments of perception (but instead are present in them only under the guise of logical forms of judgment). In my understanding of Kant's view, they play the first role outlined above (they guide the synthesis of a sensible manifold), just as they play this role in any cognitive effort to relate representations to objects they are the representation of. But they do not play the second role outlined above (we do not subsume intuitions or perceptions under them). This is because in a judgment of perception, we are not in a position to assert that the object of intuition thought under the concepts combined in our empirical judgment is "in itself determined" with respect to the connection we are thinking, and thus subsumable under a category.

Now, in these two roles (guide for synthesis, universal representation under which objects are subsumed) I maintain that according to Kant, categories are generated by the combined use of our intuitive and discursive capacities. I now want to say something in response to Sedgwick's worries about this point.

Epigenesis

As Sally Sedgwick correctly points out, I emphasize the fact that for Kant, not all comparison is a comparison of concepts, or even a comparison of objects geared toward the formation of concepts. There is also a strictly "aesthetic" comparison, one that occurs only in sensibility.¹⁷ But even more importantly, I insist that there is for Kant a pre-discursive act of synthesis of sensible manifolds, which is the necessary condition of the comparison of these manifolds, a comparison that leads to forming concepts that will be combined according to the logical forms of judgment. The synthesis is governed by rules: a priori rules that guide the syntheses to just those forms of combinations that will make it possible to compare, and thus reflect sensible manifolds according to logical forms of judgment. Those a priori rules are the schemata of the categories. In comparing sensible manifolds that have been synthesized according to those a priori rules, we generate empirical rules for apprehension, rules that will be thought under empirical concepts. So, for instance, we have the a priori rule: "Look for what can be recognized as remaining one and the same thing while its properties change" (this is the schema for the category

¹⁷ For further clarifications concerning the role of comparison in forming empirical judgments, see *KCJ*, pp. 113–14.

of substance). Or again, the a priori rule: "look for what can be represented by way of a successive synthesis of homogeneous units" (this is the schema for the category of quantity). But in comparing empirical manifolds synthesized according to these a priori rules, we become aware of common patterns of apprehension and we form empirical rules such as: "look for what can be represented by way of a synthesis that varies around: four supporting elements (the paws), an oblong-shaped body and pointed front part (the head), a wagging end-part, a loud sound, and so on" (this is the schema for the empirical concept of dog).

I think that some of the puzzlement Sedgwick expresses comes from the fact that she confuses what I say about empirical concepts and their schemata, and what I say about the categories and their schemata. For instance, she asks: "How can schemata both guide comparison and result from comparison?"¹⁸ Here the answer is quite simple: we are not talking about the same schemata in both cases. The schemata that guide the comparison are the schemata of the categories. We must have synthesized according to the categories – looking for homogeneous manifolds, looking for permanent and changing properties, looking for sequences in which any change of states "presupposes something upon which it follows according to a rule" – in order to come up with representations of individuals that we proceed to compare in search of empirical rules for recognition – empirical schemata.

As an example of the kind of judgment that results from the process of comparison I have been describing, I would not choose: "the tree is a spruce" (Sally Sedgwick's example) but rather: "all things that have a trunk, branches and leaves, are trees," or perhaps: "all trees that have leaves of such and such a shape are spruces." For what I have been describing is the process of selecting common features to form empirical rules for recognition of kinds of things in nature. "This tree is a spruce" would be relevant as an example of application or instantiation of a rule for recognition thus formed. Moreover, I do not think that an act of comparison is needed to determine "which concept is to assume the place of logical predicate, and which of logical subject" (as Sedgwick suggests). For this is arbitrary: as Kant writes, we might say "all bodies are divisible" or "some divisible things are bodies." The place of a concept as subject or predicate in an empirical judgment becomes constrained only when we think the object thought under it as "in itself

¹⁸ Sedgwick, "Priority," p. 86.

determined with respect to a logical form of judgment,” namely subsumable under a category (on this point, see B129). On the other hand, the act of comparison is needed to determine whether the judgment to be formed should be an affirmative or a negative judgment (expressing the agreement or the opposition of concepts under which we represent objects), a universal or a particular judgment (expressing the identity or diversity of objects with respect to concepts), a categorical or a hypothetical judgment (expressing a predication under an inner or an outer condition).¹⁹

Now, what about the categories and their “acquisition”? Sedgwick suggests three senses in which I might be maintaining that the categories are “generated” in our acts of judging: we become aware of them in our acts of judging, they are realized in our acts of judging, their form (universality) is generated out of acts of judging. She adds that in the third sense there is nothing special about the categories: all concepts are generated as to their status as universal and reflected representations by acts of judging. I agree. I spend quite a bit of time explaining just this point. I am not sure I would endorse either of the first two suggestions, however: I do not think there is much sense in distinguishing between “rule” and (clear or obscure) “awareness of the rule” in the case of either schemata or concepts, and I do not think I actually use the expression “realize the categories.” So, what do I mean when I talk of “generating” the categories, and how would I answer Sedgwick’s concern, that the specificity of categories as a priori concepts seems to be lost if we accept this point?

Kant himself, actually, is quite explicit about what he calls the original acquisition of the categories. In his well-known response to Eberhard, he explains how both space and time, as formal intuitions, and the categories, are “originally acquired.” The text is worth quoting at some length:

Impressions are always required in order first to enable the cognitive powers to represent an object ... Thus the formal *intuition* which is called space emerges as an originally acquired representation (the form of outer objects in general) ... the acquisition of which long precedes determinate *concepts* of things that are in accordance with this form. The acquisition of these concepts is an *acquisitio derivativa*, as it already presupposes universal transcendental concepts of the understanding. *These likewise are acquired and not innate, but their acquisition,*

¹⁹ See *KCJ*, ch. 6.

like that of space, is originaria and presupposes nothing innate except the subjective conditions of the spontaneity of thought (in accordance with the unity of apperception).²⁰ [emphases in the last sentence are mine]

The idea, then, is this: categories are acquired in that we would form these concepts neither as rules for synthesis of manifolds in intuition, nor as “universal and reflected representations,” unless impressions had triggered our cognitive powers to launch the effort to represent objects. But they are originally acquired in that both *what* the rules of synthesis, and *what* the universal concepts reflecting these rules are going to be, are a priori determined by “the subjective conditions of the spontaneity of thought” (the logical functions of judgment) together with the “first formal grounds of sensibility” (space and time). In the *Critique*, Kant describes this a priori acquisition as an “epigenesis of pure reason,” and he contrasts his “epigenetic” view of reason both with innatism and with the idea of an empirical generation of the categories (B167–8). There is thus no ambiguity at all about the notion. What makes the generation of the categories unique is that although they are generated (both as rules for synthesis and as discursive concepts) only under empirical conditions, their content is determined independently of these empirical conditions and, indeed, is an a priori condition for the generation of any representation of empirical objects at all.

What I have said so far should now help me address Henry Allison’s questions concerning my treatment of the categories in Deduction B.

Deduction B: “Where have all the categories gone?”

Deduction B, part one

Allison and I agree that Deduction B is one argument in two main parts. In the first part, Kant is concerned with proving that the categories are the intellectual conditions for the representation of an object of sensible intuition in general. In the second part, he is concerned with showing how the categories relate to the sensible conditions under which

²⁰ *Über eine Entdeckung, nach der alle neue Kritik der reinen Vernunft durch eine ältere entbehrlich gemacht werden soll*, AAIVIII, p. 223; trans. Henry Allison, *On a Discovery whereby any New Critique of Pure Reason is to be made superfluous by an older one*, in *Theoretical Philosophy after 1781* (Cambridge: Cambridge University Press, 2002). For a careful and detailed study of the “epigenesis” and “original acquisition” of our representations of space and time according to Kant, see Wayne Waxman, *Kant’s Model of the Mind* (Oxford: Oxford University Press, 1991), ch. 7; also chs. 1 and 3.

empirical objects are given. However, Allison and I disagree about the precise content of the argument in each part.

Concerning the first part, Allison urges that in stressing as I do the role of the logical functions of judgment, I lose track of the categories altogether. Moreover, he thinks that I read the transition from part one to part two as a regressive argument that moves from the consideration of discursive judgment (analyzed in §19) to its conditions in the transcendental synthesis of imagination (§§24 and 26). Against this “regressive” reading, he urges that Deduction B is a progressive argument, from the elucidation of purely intellectual conditions for the representation of objects (categories as forms of intellectual synthesis) to the elucidation of the application of the categories to our sensible intuition and, more particularly, their role as conditions of the unity of time. Let me consider each of these two points in turn. The second will provide me with the transition to Allison’s criticism of my treatment of the categories in the second part of the B Deduction.

First, do I lose the categories altogether in the first part of the argument? I do not think so, for the reasons stressed above: I do insist that logical forms of judgment are forms of the combination of concepts, whereas categories are universal representations of the synthesis of intuitions. This difference is strongly present in my reading of the first part of the B Deduction. I devote a separate chapter (ch. 3) to §§15–18 of the B Deduction, where Kant argues (1) that any representation of an object rests on the unity of the synthesis of a manifold in intuition (§15), and (2) that this unity is to be referred back to the original synthetic unity of apperception (§§16–18). Only after going through these initial steps do I submit to close scrutiny §19, where Kant states that the logical form of judgments is the objective unity of the apperception of the concepts (note: of the concepts) combined therein, namely the unity by means of which concepts are related to objects. After devoting four chapters to analyzing what Kant might mean by this, I conclude:

Kant’s purpose in section 19 is to argue that the logical form of judgment is the *discursive* form of the objective unity of apperception whose *intuitive* form he described in section 18 as preceding and determining all empirical-subjective unity of consciousness . . . This is what allows him to conclude, in section 20, that the unity of empirical intuition, insofar as it necessarily stands under the original synthetic unity of apperception, also stands under the logical form of judgment, and thereby under the categories, since the latter are nothing other than “concepts of an object, insofar as the intuition of that object is considered as determined with

respect to the logical functions of judgment" (section 14) or "universal representations of synthesis" (section 10).²¹

So I do make the distinction quite explicitly, and I do stress how Kant's opening argument concerning the necessity, for any representation of object, of a unity of synthesis of intuition under the unity of apperception is what allows him to move from asserting that the manifold of intuition is brought to the unity of apperception by way of the logical form of judgment, to asserting that this manifold is subject to the categories. I admit, however, that some of my formulations tend to blur the distinction between logical functions of judgment and categories. This is because I put great emphasis on the fact that absent any sensible manifold to be synthesized, all that remains of the categories are logical functions of judgment. And even with a manifold to be synthesized, to understand each and every one of the categories we need to relate it to the specific form of judgment toward which it guides the synthesis of manifolds in intuition. This is what it means to say that a category is a "concept of an object, by means of which the intuition of this object is considered as determined with respect to a logical function of judgment."

In fact, it is precisely because I give so much importance to the relation of categories to the synthesis of intuitions that in *KCJ* I indicate my disagreement with Henry Allison's view according to which in the first part of the B Deduction, the object Kant is concerned with is only an object *in sensu logico*, in contrast to the second part where Kant is supposed (according to Allison) to be concerned with the sensible object, the object given in the forms of our sensibility, space and time. Against this view, I maintain that already in the first part of the Deduction, the notion of an object is to be analyzed as involving (1) the "undetermined object of an empirical intuition" (the appearance of the Transcendental Aesthetic), (2) the object of the synthesis of appearances (cf. §17 of the Deduction, at B137: "the *object* is that in the *concept* of which the manifold of a given intuition is *united*" – all emphases are Kant's), and (implicitly) (3) the transcendental object, namely the object we presuppose as existing, and by reference to which we seek agreement among our synthesized representations.²²

²¹ *KCJ*, p. 185.

²² For the same reason (in addition to textual reasons), in *KCJ* I express doubts about Henry Allison's suggestion that the distinction between *Objekt* and *Gegenstand* on the one hand, objective validity and objective reality of the categories on the other hand, is relevant to the transition from part one to part two of the B Deduction. I think in both parts the categories

Nevertheless, I agree with Allison in maintaining that in the first part of the Deduction, the categories are considered as pure intellectual concepts of the unity of synthesis of any intuition, as long as the latter is sensible (receptive, not spontaneous). The forms of our sensible intuition, space and time, do not play any specific role in the argument. By contrast, in the second part they do come into the foreground. Allison and I also agree that for this to be a significantly new move in the argument, part two has to be more than the specification to the case of our sensibility, of an argument first made in the general case of all sensibly conditioned intellect. So what is new about part two of the argument?

In my view, the answer is this: in part one, Kant argues that the categories, albeit originating in the understanding alone, are concepts under the guidance of which the synthesis of any sensible intuition achieves the kind of unity that allows it to be related to an object represented as distinct from our representation of it. In part two, he argues that space and time themselves, the forms of our sensibility, stand under the very same unity of apperception whose discursive forms are the logical forms of judgment, and in which the categories thus originate as “concepts of an object, by means of which the intuition of the object is considered as determined with respect to a logical function of judgment.”

Contrary to Allison, I do not think that the decisive step in part two is §24, namely Kant’s explanation of what he calls the “figurative synthesis” (*synthesis speciosa*) or transcendental synthesis of imagination. I take §24 to be a transition section, one that is certainly extremely important in that it introduces the notions that will be essential to the second part of the argument: figurative synthesis, affection of inner sense by the understanding. But part two of the argument, properly speaking, does not occur until §26. Kant himself states this quite explicitly, not once but twice, each time stressing that in part two he is going to consider “the manner in which things are given” (B144–5, B159).

Is such a move from part one to part two of the Deduction a regressive argument? One may want to describe it in this way, since after all things do need to be given before they are thought (synthesized and reflected under concepts according to the logical forms of judgment). So my account might be read as a regression from conditions of thought to

are related to the object of empirical intuition. However, in the first part, the argument rests on the nature of the categories as forms of thought. In the second part, in contrast, it rests on the nature of space and time as the a priori forms of our sensible intuition. See *KCJ*, pp. 110–11, n. 14.

what is more primitive: conditions of presentation in sensibility. However, I should caution that I do not think that the argument proceeds simply by retreating, or regressing, from forms of discursive understanding (part one) to the syntheses of imagination as their precondition (part two). The argument is more radical than this if, as I have just suggested, it moves from forms of thought to forms of givenness. Nevertheless, Allison is correct in pointing out that I talk of a “retreat” from the forms of discursive understanding to the syntheses of imagination. But when I use this expression, what I describe is the transition, in my own book (*KCJ*), from part two (where I consider the logical forms of judgment) to part three (where I consider the transcendental syntheses of imagination, and thus not only §§24 and 26 of the Deduction, but also the System of Principles of the Pure Understanding).²³ When describing Kant’s argument in Deduction B, what I say is that part two of the argument is a revisiting, in light of the argument of part one, of “the manner in which things are given,” namely the forms of intuition, space and time, that were first expounded in the Transcendental Aesthetic.²⁴ Kant’s point is that space and time themselves, which have been described in the Transcendental Aesthetic as forms of intuition and pure intuitions, are now revealed to be the product of the “affection of sensibility by the understanding,” namely by the unity of apperception as a capacity to judge. And so, by the mere fact of being given in space and time, all appearances are such that they are a priori in accordance with the categories, and thus eventually subsumable under them.

However, I am aware that I am not making my case any better in Allison’s eyes by proposing to read the second part of the B Deduction in this way. Our most fundamental disagreement bears precisely on this point.

So I now consider Deduction B, part two.

²³ *KCJ*, p. 197.

²⁴ See *KCJ*, pp. 212–16. I do not claim to be especially radical in my reading. It is Kant’s thesis that I describe as radical, not my reading of it. What I hope on behalf of the latter is that it is accurate. Nor do I make any claim to being the first to defend such an interpretation. Predecessors include e.g. Hegel: see *Glauben und Wissen*, in G. W. F. Hegel, *Gesammelte Werke*, Deutsche Forschungsgemeinschaft, ed. Rhein-Westfäl. Akad. d. Wiss. (Hamburg: F. Meiner, 1968–); *Faith and Knowledge*, trans. Walter Cerf and H. S. Harris (Albany: SUNY Press, 1977). Pierre Lachièze-Rey: see *L’Idéalisme kantien*, 3rd edn (Paris: Librairie philosophique Vrin, 1972); Wayne Waxman: see *Kant’s Model of the Mind*. The originality I claim for my view is my emphasizing the relation between the unity of apperception and the logical functions of judgment, and my relating the unity of space and time to the “unity that precedes the category of unity” (B131, in §15 of the B Deduction). More on this below.

Deduction B, part two

Allison objects to two main points in my interpretation of this second part: my identifying the “formal intuitions” of §26 of the B Deduction with the “forms of intuition and pure intuitions” of the Aesthetic, and my claim that when Kant defines *synthesis speciosa* as an affection of sensibility by the understanding, he means affection by the capacity to judge. Let me consider each point in turn.

First, form of intuition and formal intuition.

I maintain that when Kant describes space and time as “formal intuitions,” in the footnote to §26 of the Transcendental Deduction, he is describing the very same space and time he characterized as “forms of intuition” or “pure intuitions” in the Transcendental Aesthetic. I am not maintaining that the Transcendental Deduction calls for a “revision” of the Transcendental Aesthetic. The term I use is “re-reading”: what I think is that everything that was said in the Transcendental Aesthetic about the nature of space and time stands, but it is brought into new light by the argument of the Deduction. Indeed, when Kant says, in §26, that space and time “are represented with the determination of the *unity* of the manifold,” he immediately adds: see the Transcendental Aesthetic (B160).²⁵ And then he goes on: this unity presupposes a synthesis by means of which “(in that the understanding determines the sensibility), space and time are first *given* as intuitions” (B161n). Here he refers us back to §24, where he explained the “affection of sensibility by the understanding” as being a *synthesis speciosa*, or the transcendental synthesis of imagination (see B151–2). Space and time, then, are forms of sensibility, just as Kant maintained in the Transcendental Aesthetic. But they are forms of a sensibility affected by the understanding, and thus they are the product of *synthesis speciosa*, the transcendental synthesis of imagination. And I must say that it seems to me quite reasonable to maintain that the unity, unicity (there is only one space and one time), and infinity of time and space – all features attributed to them as pure intuitions, in the Transcendental Aesthetic – are features we imagine or anticipate and thus project as preconditions of the unity of experience. It strikes me as quite reasonable to maintain that, on the one hand, the qualitative features of spatiality and temporality depend on our sensibility, which

²⁵ The same was said at B136n, B140, B137. But only now is the point brought into the argument with full force.

thus provides “first formal grounds” of the ordering of sensations that yields appearances; and that, on the other hand, the unity, unicity, and given infinity of space and time – and thus space and time themselves, as intuitions in which all appearances are combined and ordered – are products of our imagination. This is no revision of the Transcendental Aesthetic. The latter allowed for this further development, indeed mentioned it explicitly in the B edition, where Kant introduced the idea of a “self-affection” of the cognitive subject, in striking parallel to the idea of *synthesis speciosa* introduced in the Transcendental Deduction (cf. B68–9).

In support of my proposal that the “forms of intuition” of the Transcendental Aesthetic turn out just to be the “formal intuitions” resulting from what Kant calls, in the B Deduction, the “affection of sensibility by the understanding,” I observe that it would be a mistake to suppose that “form of intuition” is universally opposed to “formal intuition” as what is indeterminate to what is determinate. The reason this would be a mistake, I maintain, is that Kant’s notion of form is a relational one, always paired with matter. And in this pairing, form means “determination,” matter “undetermined” (and determined by the form) (see A266/B322). To this, Allison objects that the opposition between form of intuition and formal intuition, in the footnote to B160, is an opposition between what remains “indeterminate” and what is “determinate.” Moreover, he points out that Kant also mentions “form of intuition” as what is indeterminate elsewhere (B154). Of course I agree with that. As Allison acknowledges, I myself insist that in the footnote to B160 the “form of intuition” is indeterminate by comparison to the “formal intuition” which is determined by the “affection of inner sense by the understanding.” What I add, however, is that the opposition so understood cannot hold universally and cannot be an argument for opposing formal intuition to form of intuition in all cases. My suggestion is that “form” should always be understood in context, and in connection with the specific matter for which it is the form. Thus the form of intuition as mere “formal ground” (in *On a Discovery*) is a form for a matter, sensations as mere affections of which we are not even conscious. The formal intuition as providing “not only the manifold, but the unity of the manifold” (B 160n) is a form for the matter of appearances. Recall that, in the Transcendental Aesthetic, Kant says of the appearances that their matter is “that which corresponds to sensation” and their form is space and time as forms of our sensible intuition (and themselves pure intuitions). In a footnote to the Transcendental Dialectic, Kant explicitly

equates “form of intuition” and “formal intuition”: “Space is merely the form of outer intuition (formal intuition)” (B457n).²⁶

Second, affection of sensibility by the capacity to judge.

Allison thinks that in maintaining that the “affection of sensibility by the understanding” is an affection of sensibility by the capacity to judge, I am claiming that in *synthesis speciosa*, sensibility is affected by logical functions of judgment rather than by the categories as full-fledged concepts.²⁷ But this is not exactly what I think. What I understand Kant as saying is this: the unity of apperception, as a capacity to judge, generates the representation of the unity and unicity of space and time, as the condition for any specific act of judging at all, thus prior to any specific synthesis according to the categories, let alone any subsumption under the categories. This representation of unity (or, one might say, the anticipation of an overall unity of appearances in one space and one time), which is prior to any specific synthesis, was mentioned by Kant without further explanation at the end of §15 of the Transcendental Deduction. There he said that there is a unity which is not the category of unity, but the higher unity that presides over all acts of judging. Applied to the forms of intuition, we are now told, this unity generates the formal unity of space and time within which any categorial synthesis at all occurs. In my understanding, the formal intuitions thus generated are the representations of space and time as “infinite given magnitudes” mentioned in the Transcendental Aesthetic, the “pure images of all magnitudes” mentioned in the Schematism chapter, the *entia imaginaria* mentioned in the table of nothing, and the “formal intuitions or forms of intuition” mentioned in the Transcendental Dialectic as the original intuitions in which the successive synthesis of appearances is achieved, under the regulative idea of a world-whole.²⁸

²⁶ Cf. *KCJ*, pp. 222–3. See also my “Synthèse et donation. Réponse à Michel Fichant,” *Philosophie*, no. 60 (1998), pp. 79–91, translated as ch. 3 in this volume.

²⁷ Allison proposes that when Kant says, in the footnote to B160, that in the Transcendental Aesthetic he has “ascribed the unity of space and time merely to sensibility, only in order to note that it precedes any concept,” he means concepts of space and time, not the categories. He may be right on this point. But I do not think this can apply to the second occurrence of “concepts” in the same footnote: “the unity of this a priori intuition belongs to space and time, and not to the concept of the understanding.”

²⁸ The “infinite given magnitudes” of the Transcendental Aesthetic: A25/B39, A32/B48; the “pure images of all magnitudes” in the Schematism chapter: A142/B182; the *entia imaginaria* of the table of nothing: A292/B348; the “formal intuitions or forms of intuitions” of the Transcendental Dialectic: A424/B457n.

And this is why I described the second part of the Deduction as making a more radical argument than is generally perceived. As I understand him, Kant is claiming that the space and time represented as one space and one time within which any object of experience is given, are themselves, before any specific categorial activity (synthesis or analysis or subsumption under the categories) the product of the very same unity of apperception that proceeds to generate syntheses according to the categories and thus initiates the never-ending process of cognition. So anything given in space and time, just by being given in space and time, stands under the unity of apperception and thus the categories.

That this is the thrust of Kant's argument seems to me to be confirmed by what he says in §§21 and 26: the first part of the deduction considered the categories as forms of thought. He states that we must now consider the manner in which things are given. And he claims that he will show that with, not in, the forms of intuition, a priori modes of ordering are given (B161). Here at last Kant addresses the worry he expressed before even beginning the Transcendental Deduction proper: it was relatively easy, he said, to show that appearances must conform to forms of space and time, because these forms just are forms according to which appearances are given. The matter is quite different in the case of the categories. For "appearances can certainly be given in intuition independently of functions of the understanding" (A90/B123). Well, this contrast loses much of its sting if space and time themselves, as "the manner in which things are given," stand under the very same unity of apperception that is the source of synthesis according to the categories. This, I think, is the completion of the transcendental deduction Kant was announcing as early as §21.

A great deal more might be said in answer to Sedgwick's and Allison's thoughtful comments. Within the limit of this response I will only mention one last point. Both of them raise, only to withdraw it immediately, the possibility that my reading of Kant's argument might bring it into some surprising proximity to later German Idealism. Allison makes, and then withdraws, the suggestion that my view of the forms of intuition as resulting from an "affection of sensibility by the understanding" might bring Kant closer to Fichte's view than either he or I would have expected. Sedgwick makes, and then withdraws, the suggestion that my talk of "generating" the categories might bring Kant closer than either she or I would have thought to what she calls "Hegel's attack on the *a priori*." I think this common pattern in their comments is due to the fact that, in my reading, Kant's notion of both "the *a priori*" and "the

given” is more complex than is generally supposed. This complexity was certainly grasped by the German Idealists better than it has been in more recent readings of Kant, even while they (especially Hegel) chastised Kant for remaining adamant in distinguishing receptivity (passivity) and spontaneity (activity) in our cognitive capacities. As for me, my view is that Kant was right to insist on this distinction, and I do not think anything in my reading of the *Critique* leads to loosening it in any way.²⁹ I do think, however, that one of the benefits of my interpretation is its making clearer how Kant could remain true to this distinction while radically challenging what we have come to call, after Sellars, “the Myth of the Given.”³⁰

I have tried to show that this challenge, and Kant’s elucidation of the reason-giving activity by way of which we relate our representations to objects, was made possible by two extraordinary moves. The first is Kant’s invention of the notion of a form of intuition – namely a form, or forms, for ordering and individuating what is empirically given. The second is his unprecedented use of a quite traditional logic of concept combination, into which he introduces the reference to an x of judgment that ultimately stands for the intuited individual’s thought under concepts combined in judgment. Both inventions are essential to the argument of the Metaphysical and Transcendental Deductions of the Categories. But the full measure of their pay-off can be gleamed not there, but rather in the next section of the *Critique*: the System of Principles of the Pure Understanding, where Kant expounds his conception of mathematics and its application to the science of nature, the meaning and use of the traditional metaphysical concepts of substance, causality, and universal interaction, and the meaning and use of the modal categories – possibility, actuality, necessity.³¹

²⁹ On this point, see my “Point of view of man or knowledge of God: Kant and Hegel on concept, judgment and reason,” in Sedgwick, *Kant and German Idealism*.

³⁰ Cf. Wilfrid Sellars, “Empiricism and the philosophy of mind,” in Herbert Feigl and Michael Scriven (eds.), *Minnesota Studies in the Philosophy of Science*, 1 (Minneapolis: University of Minnesota Press, 1956), pp. 253–329; repr. with an introduction by Richard Rorty and a study guide by Robert Brandom (Cambridge, Mass.: Harvard University Press, 1997); John McDowell, *Mind and World* (Cambridge, Mass.: Harvard University Press, 1994; 2nd edn 1996).

³¹ On the relation of space and time to the relational categories, see in this volume chs. 6 and 7.

SYNTHESIS, LOGICAL FORMS, AND THE OBJECTS OF OUR ORDINARY EXPERIENCE

Michael Friedman has offered a rich and stimulating discussion of my book, *KCJ*. While giving a characteristically generous and clear-sighted account of my views, he maintains that on the whole I fail to do justice to what is most revolutionary about Kant's natural philosophy, and instead attribute to Kant a pre-Newtonian, Aristotelian philosophy of nature. The reason for this distortion, according to Friedman, is that I put excessive weight on Kant's claim to have derived his categories from a set of logical forms of judgment which he inherited, with some adjustments, from a traditional Aristotelian logic. In taking Kant at his word on this point, I wrongly attribute to him a traditional view of concepts and concept formation that was shared by early modern empiricists and rationalists alike, but that Kant's lasting contribution is precisely to have rejected. And I fail to give their full import to Kant's remarkable insights into the newly discovered applications of mathematical concepts and methods to the science of nature. According to Friedman's assessment, then, at worst my book ends up hurling back Kant's philosophy into the dark ages of Aristotelianism. At best, it reveals in Kant a tension between Aristotelianism and Newtonianism that more enlightened minds are now better able to identify and pry apart.¹

¹ See Michael Friedman, "Logical forms and the order of nature: comments on Béatrice Longuenesse's *Kant and the Capacity to Judge*," *Archiv für Geschichte der Philosophie*, vol. 82 (2000), pp. 202–15.

The questions Friedman raises are insightful and challenging. However, my impression is that his assessment of my position suffers from the relatively scarce attention he devotes to my views about the role of synthesis in Kant's *Transcendental Analytic*. I insist throughout the book that this notion – not that of the “logical use of the understanding” according to the logical forms of judgment – carries the weight of Kant's conception of mathematics and its application in natural science. As early as ch. 1 (“Synthesis and judgment”) I explain that Kant's argument in the metaphysical and transcendental deductions of the categories is built on the consideration of two quite different, but related and complementary, aspects of the understanding's employment or use: its “logical use” according to the logical forms of judgment; and its use in “pure synthesis,” that is, in the a priori ordering of manifolds in space and time, the work of pure (productive) imagination. And I show how Kant's critical notion of synthesis is gradually developed in connection with his epistemological insights into the concepts and methods of mathematics. It ought to come as no surprise, then, if in neglecting what I say about synthesis and focusing his discussion almost entirely on what I say of the relationship between Kant's categories and the logical forms of judgment, Friedman should find my interpretation difficult to reconcile with Kant's avowed Newtonianism.

Still, I think Friedman is correct in stressing the disagreements between our respective readings of Kant's argument in the *Transcendental Analytic* of the *Critique of Pure Reason*. In what follows I shall try to clarify the grounds of this disagreement on each of the points raised by Friedman.

Bottom up or top down?

Friedman sees me as defending an essentially “bottom-up” interpretation of the relation between Kant's pure concepts of the understanding and experience. In other words, he thinks I maintain that Kant's categories are derived from experience by an inductive method relying on procedures of comparison and abstraction performed upon what is given to our senses. To this supposedly “bottom-up” view of Kant's categories and their application in natural science, he opposes his own “top-down” view, according to which the modern mathematical science of nature relies on the instantiation of strictly a priori synthetic principles: Kant's “Principles of the Pure Understanding,” expounded in the *Transcendental Analytic* of the *Critique of Pure Reason*.

But actually, I do not defend a “bottom-up” interpretation of Kant’s categories, their acquisition, and their use. On the contrary, I insist that according to Kant, categories are a priori concepts that originate in the understanding alone: this is precisely what their agreement with a table of logical functions of judgment is supposed to show. And I agree with Friedman that according to Kant the modern mathematical science of nature rests on the instantiation, in connection with the empirical concept of matter, of the synthetic a priori principles which predicate the categories of all appearances. But Kant’s question in the *Critique of Pure Reason* is: how is such application of pure concepts of the understanding possible, that is, what makes it legitimate to presuppose that the categories are universally true of objects given to our senses? In answering this question, Kant lays out two main aspects of the human intellect and its use: what he calls the “logical use of the understanding”; and what he calls the “transcendental synthesis of imagination” which is, he says, the “first application of the understanding (and the one that grounds all others” (B152)). The relationship between the “logical use of the understanding” and the transcendental synthesis of imagination is at the core of Kant’s metaphysical deduction of the categories, namely his laying out of their complete table according to the leading thread provided by a few elementary logical functions of judgment.

In its logical use, says Kant, the understanding orders various representations – intuitions or concepts – under a common representation (a generic concept). The forms according to which such ordering takes place (the logical forms of judgment), then, are not only forms according to which concepts are combined (subordinated to one another) in judgments. They are forms (modes of combination of concepts) that guide the very acquisition of concepts from the sensible given in the first place: empirical concepts are formed for use in judgment (A68/B93). In *KCJ* I argue that this aspect of the logical use of the understanding is also what Kant calls, in the *Critique of the Power of Judgment*, “reflection” (the “bottom-up” process of forming empirical concepts from the representation of particular objects). And I examine in great detail the ways in which each logical form of judgment guides this reflective process of concept formation. In doing this, I rely on the important appendix to the *Transcendental Analytic*, the *Amphiboly of Concepts of Reflection* (A260/B316–A290/B346).

Now, immediately after expounding the “logical use of the understanding” and the table of logical forms according to which it is exercised, Kant goes on to argue that for this logical, reflective use of the

understanding to take place, synthesis must have occurred. By synthesis, he means the combination of sensible manifolds in intuition. This combination has a “pure” aspect: for any empirical manifold to be synthesized, the forms of space and time in which intuited manifolds are given and ordered must themselves be combined in such ways that the manifolds in them can be reflected under concepts according to logical forms of judgment. Categories, says Kant, are just the pure concepts that guide these syntheses or combinations: they are concepts of the unity of synthesis of the spatiotemporal manifolds. As such, they guide the synthesis of manifolds in very much the same way in which, for instance, a concept of number guides the enumeration of a collection (A78/B104).

So considered (as “concepts of the necessary unity of synthesis”), categories are quite different in kind from the generic concepts formed by comparison and abstraction. In *KCJ* I explain in detail how Kant’s discovery of the categories under this aspect is related to his understanding of mathematical concepts as opposed to concepts of natural kinds acquired by empirical inductive processes. However, I also maintain that the categories, which, as “pure concepts of the unity of synthesis” guide synthesis and, as such, are necessarily at work before any analysis or reflection takes place, are themselves reflected as “clear” concepts only after empirical concepts have been formed under their guidance. Indeed, Kant is quite explicit about this twofold status of the categories when he describes his method of investigation at the beginning of the *Transcendental Analytic*:

We shall follow the pure concepts all the way to their initial germs and foundations in the human understanding, in which they lie prepared [*in denen sie vorbereitet liegen*], until finally they are developed under the spur of experience and are presented by this same understanding, freed from the empirical conditions that attach to them, in their purity. (A66/B91)

In my view, the “initial germs and foundations” of the categories are the logical functions of judgment as a priori forms of discursive thought; their “development under the spur of experience” is their emergence as concepts of the unity of synthesis (namely, a priori rules for the unity of synthesis, guiding it toward analysis according to the logical forms of judgment); their “presentation, freed from the empirical conditions” is their reflection as clear concepts under which appearances are subsumed, for instance when we form causal judgments or when we apply concepts of extensive or intensive magnitudes to objects of experience. According to such an account, then, when Newtonian science appears in

the history of human knowledge, it inherits this long process of development and clarification of the pure concepts of the understanding. Does this make my account of the categories a “bottom-up” account rather than a “top-down” one? I do not think so, for the following two reasons.

First, in my account, the categories are a priori concepts that guide “from the top down” the syntheses of sensible intuitions so that our representations are related to objects susceptible to being conceptualized by means of reflection, and thereby related to other concepts in judgments. The top-down procedure thus precedes and makes possible the bottom-up. The role of categories as logical functions of judgment governing reflection capable of yielding concepts of objects presupposes their role as synthesis determiners (concepts of the unity of synthesis).

Second, this is why we can be confident that when Newton presupposes – as he does, according to Kant – the truth of the synthetic a priori principles instantiated in the laws of motion of the *Principia*, he is warranted in doing so: the categories, and thus the principles that predicate them of appearances, are indeed true of the objects of perceptual experience, the middle-sized objects of the modern mathematical science of nature. This being said, it remains the task of empirical science to determine which specific combinations and connections of appearances instantiate the pure principles of the understanding. The answer to this question can be given only by considering any empirically discovered combination and connection in the context of the totality of (endlessly revisable) experience.

In order further to substantiate this view, let me now consider the two cases Friedman discusses more particularly: quantity and causality.

Quantity

Friedman focuses his discussion on the issue of the respective primacy of continuous and discrete magnitudes in Kant’s treatment of the categories of quantity. He contends that I give undue privilege to the latter over the former, whereas in Kant’s treatment, continuous magnitudes are primary. Number itself is “conceived in terms of the addition of line segments with an arbitrarily chosen unit, say, rather than in the Fregean style in terms of the extensions of concepts.”² In failing to perceive this primacy, says Friedman, I remain insufficiently aware of the relationship

² *Ibid.*, p. 206.

between Kant's critical philosophy and the modern mathematical science of nature.

Let me first recall the three main questions Kant addresses, concerning the categories in general: (1) what is thought in them, as "pure concepts of the understanding"? (2) How do they relate to sensible intuition? (3) How does the account of their relation to sensible intuition justify the synthetic a priori judgments that state their universal applicability to appearances? With respect to the categories of quantity (unity, plurality, totality), if we follow the metaphysical deduction of the categories, Kant's answer to the first question is that they are pure concepts of just those syntheses necessary so that particulars are subsumed under concepts in singular, particular, and universal judgments.³

Kant's account of number occurs in the course of his answer to the *second* question: how do categories relate to sensible intuition? Number, says Kant, is the schema of quantity, namely a "representation that gathers together the successive addition of unit to (homogeneous) unit [*eine Vorstellung, die die sukzessive Addition von Einem zu Einem (gleichartigen) zusammenfaßt*]" (A142/B182). I argue that "homogeneous" should be understood as "of the same kind," i.e. "falling under the same concept."⁴ In relating number to the pure concept of quantity and the latter to the logical quantity of judgments, I maintain that Kant thus appears strikingly close to Frege's view that numbers are properties of concepts, namely that they attach to collections of individuals falling under the same concept.⁵

Now, Friedman urges that I "slide without any real argument" from this notion of number as attaching to sets of objects thought under a concept (the proto-Fregean notion of number), to number as assigning to individual objects particular sizes or magnitudes (the pre-Fregean, Euclidean notion of number, where number is defined in relation to the measurement of line segments in space). I find the charge surprising: in fact I take pains to explain the transition from the first to the second use of number in some detail, and then conclude that according to Kant, "when we measure a line by adding units of measurement, what we do is in effect recognize in the line a plurality of elements thought under the same concept: 'segment equal to segment s'."⁶ In my view, the notion of

³ In *KCJ* I defend the view that the correspondence between logical forms and categories is: singular judgment/unity, particular/plurality, universal/totally. Friedman challenges this view. I discuss this point below, pp. 45–6.

⁴ *KCJ*, p. 250.

⁵ *KCJ*, p. 257.

⁶ *KCJ*, p. 265.

number as attaching to arbitrarily chosen units of measurement is thus to be understood in the light of the notion of number attaching to extensions of concepts, which itself is referred back to our capacity to form judgments determined as to their logical quantity (that is, to our capacity to subsume individuals under concepts, and thus to represent them as homogeneous units). This does not mean that measuring a line segment, a surface, or a volume, is forming a discursive judgment in which a generic concept is subordinated to another. All it means is that the capacity to recognize homogeneous units, susceptible to being gone through and synthesized as units of measurement, depends on the discursive capacity to judge according to the logical form of quantity. Of course, the discursive capacity is not the only faculty in play here. Number, as the schema of quantity, or as a “representation that gathers together the addition of unit to (homogeneous) unit” also depends on the intuitive capacity to “go through and keep together” collections of (homogeneous) units through time, and thus on our pure intuition of time (our capacity to keep track of our representations in one time).

A related issue is that of the way we should understand the relationship between the order in which Kant lists the logical forms of quantity in judgment (universal, particular, singular), and the categories of quantity (unity, plurality, totality). In my book I maintain, with Michael Frede and Lorenz Krüger, that in listing the categories of quantity Kant reverses the order in which he lists the logical forms of quantity in judgment. Friedman maintains, with Manley Thompson, that there is no good reason for attributing to Kant such a reversal.⁷ On the contrary, he says, close scrutiny of Kant’s texts shows that Kant does intend the category of unity to correspond to the logical form of universal judgment, that of totality to the logical form of singular judgment. According to Thompson, we can understand the correspondence in the right way if we keep in mind that Kant’s categories of quantity are defined in connection with the measurement of *quanta*, magnitudes. Because of this, determining units (*Einheiten* in the sense I have advocated in connection with number) depends on forming universal judgments such as: “Every line of exactly this length is to be counted as a unit.” Plurality is uncontroversially connected with particular judgments. Totality is related to

⁷ See Michael Frede and Lorenz Krüger, “Über die Zuordnung der Quantitäten des Urteils und der Kategorien der Größe bei Kant”, *Kant-Studien*, vol. 61 (1970), pp. 28–49; *KCJ*, pp. 247–9; Manley Thompson, “Unity, plurality, and totality as Kantian categories,” *The Monist*, vol. 72 (1989), pp. 168–89; Friedman, “Logical forms,” p. 205. I am grateful to Michael Friedman for having brought Manley Thompson’s article to my attention.

singular judgment: a judgment that asserts a predicate of a singular thing, which as an empirical object is a *quantum*, namely something that is quantitatively determined as a totality of parts (a totality of the arbitrarily chosen units by which it is measured). This is an attractive explanation. If Thompson is right, as I think he is in this case, I have to revise my view concerning the correspondence between forms of judgments and categories, at least in the case of the application of the logical forms of quantity to the determination of spatial *quanta* (magnitudes), and thus concerning the generation of the categories of quantity grounding pure mathematics and its application in natural science. This revision notwithstanding, I would still suggest that Thompson's analysis in no way contradicts, but rather confirms my thesis that thinking a unit of measurement is in effect thinking intuited individuals (the units of measurement) under a concept, "segment equal to segment s." The example of universal judgment Thompson proposes to justify the parallelism he defends says precisely the same thing: "Every line of exactly this length is to be counted as a unit." We think or recognize (by virtue of our having stipulated) units of measurement under the concept: "line of exactly this length" and we thus obtain homogeneous units that allow us to determine the measurement of any line or any spatial magnitude.

As for the case of the quantitative determination of discrete collections of individual elements, and especially the case of individual empirical things, I am less convinced by the complex argument Thompson also offers in support of the correspondence between logical form of singular judgment and category of totality, logical form of universal judgment and category of unity. I will not attempt to discuss his view here. Whatever the case may be on this last point, I would maintain that Kant's groundbreaking move is to trace back to the logical function of quantity in judgment our capacity to determine or pick out homogeneous units (= units thought under the same concept), and to ground on this capacity the generation of categories of quantity.

The transition from (1) the quantitative determination (*quantitas*) of discrete magnitudes or aggregates (collections of homogeneous units: apples, points, strokes . . .), to (2) the quantitative determination of continuous magnitudes (*quanta*, namely objects immediately intuited as *one* rather than many, in which units of measurement may nevertheless be arbitrarily delineated and added to one another), and even more to (3) the quantitative determination of continuous magnitudes not by way of arbitrarily chosen discrete units, but by way of the representation of their continuous generation through time – as in Newton's calculus of

fluxions – this transition is made possible not by the categories of quantity alone, but by their application to space and time as intuitions or more precisely, as the intentional correlates of intuition (in imagination). So, it will be useful here to consider separately the two related issues: (1) the role of space and time as pure intuitions in the representations of infinity and continuity; and (2) the respective primacy of discrete or continuous magnitudes in Kant’s account of the categories of quantity and their application.

Space, time, infinity, and continuity

Kant defines space and time as “infinite given magnitudes” in the Transcendental Aesthetic, namely before either the metaphysical or the transcendental deduction of the categories. Similarly, in the chapter on the Schematism of the Pure Concepts of the Understanding, he defines space and time as “pure images of all magnitudes (*quanta*)” before defining number as the “schema of magnitude (*quantitas*).”⁸ Thus it is from their being intuitions, not concepts or conceptually determined, that space and time derive their property of infinity, namely their property of being (represented in imagination as) larger than any magnitude represented *in* them. Nevertheless, I argue in *KCJ* that these intuitions (singular representations that are immediately present to the mind in the way perceptions are) are themselves the result of the “affection of sensibility by the understanding,” or *synthesis speciosa*, or transcendental synthesis of imagination.⁹ In other words, representing space and time as one (as intuitions) and as one whole within which all appearances ought to be situated and ordered, depends on the original effort of the mind that eventually makes it possible to synthesize particular manifolds under the guidance of the categories – and in the first place, the categories of quantity. This does not mean that the pure intuitions of space and time are themselves generated by a successive synthesis of homogeneous units (space and time themselves cannot be measured). But they are the one formal whole within which any collection of homogeneous individuals can be recognized, any spatiotemporal magnitude can be delineated, any arbitrary choice of unit can be made, or any measurement can be taken.

⁸ See A25/B39–40; A142/B182.

⁹ See *KCJ*, p. 220.

To sum up: as I understand Kant's view, according to him the representation of space and time as infinite does not follow from the application of the categories of quantity. Rather, it is the precondition of any application of the categories of quantity. As such, it depends on the same act of the mind (the original effort to judge, applied to the pure forms of intuition) that generates the categories of quantity in their various applications.

What about the representation of space and time as continuous magnitudes? Kant defines continuity as "the property of magnitudes according to which no part is the smallest" (A169/B211). And he adds: "Space and time are continuous magnitudes, for none of their parts can be given without enclosing it within limits (points and instants), and thus only in such a way that this part is again a space or a time" (ibid.). The property of continuity, then, cannot be defined without appealing to the representation of parts and whole, and to the unity of the synthesis (whole, unity of a plurality) of arbitrarily chosen units (parts), namely the schema for the category of quantity. There is no representation of continuous or discrete magnitude without making use of the category of quantity and its schema. Nevertheless, just as in the case of infinity, the fact that space and time have the property of continuity does not depend on the category itself, as a pure concept of the understanding, but on space and time's being pure intuitions, where the whole precedes the parts and the delimitation of further parts can be pursued indefinitely. This is why I wrote that applying the categories of quantity to space and time as original *quanta*

provides them with a meaning they would not have by being merely related to the logical forms of quantity in judgment, and number is given a relation to infinity and continuity that could not be obtained by its mere definition as "a representation that gathers together the successive addition of homogeneous units".¹⁰

So, Friedman is certainly correct in stating that

it simply does not follow from the idea that space and time provide the "places" for the extensions of concepts, and thereby secure the application of *discrete* quantity or number to . . . objects (*qua* items falling under a concept), that space and time are also infinite and continuous magnitudes which thereby secure the application of the mathematics of *continuous* quantity to these same objects.¹¹

¹⁰ *KCJ*, p. 267.

¹¹ See Friedman, "Logical forms," p. 206.

The latter properties (that they are themselves infinite and continuous magnitudes and thus secure the application of continuous quantity to objects) follow from their being intuitions, pre-conceptually represented (in imagination) as “infinite given magnitudes” (B39–40) in which any spatial or temporal magnitude can be generated by a continuous synthesis through time (as in the drawing of a line).

Now, in my view, the respective primacy of discrete or continuous magnitude should be understood in light of this cooperation between the intuitions of space and time and the pure concepts of quantity in Kant’s account of the application of the latter to appearances (and thus his answer to the third question mentioned above: how do categories of quantity apply to appearances?).

Continuous and discrete magnitudes

Friedman urges that in Kant’s exposition of the categories of quantity, the case of continuous magnitudes is primary, the case of discrete magnitudes secondary. True, in the Axioms of Intuition the categories of quantity are applied to continuous magnitudes, *quanta* given in space and time and measurable either by choosing an arbitrary unit of measurement and adding it successively (in which case the *quantum continuum* is treated as a *quantum discretum* by virtue of its having a determinate ratio to the chosen unit of measurement), or by using the Newtonian method of fluxions, in which case the *quantum* is determined not by the successive synthesis of discrete units, but by the successive synthesis of continuously generated increments. Here, the combined features of the intuition of time (a *quantum continuum* in which no part is the smallest and thus any magnitude can be continuously generated) and the intuition of space (itself a *quantum continuum* in which no part is the smallest) are what determines the features of the quantitative determination of a *quantum*. And it is no surprise that the consideration of continuous magnitudes should take such primacy in the Principles. For Kant’s main concern there is to argue that mathematics is applicable to appearances “in all its precision [*in ihrer ganzen Präzision*]” (A165/B206), namely all the way down to the application of calculus and its notion of the infinitesimal. It is worth noting, moreover, that the issue of continuity is explicitly mentioned only in the Anticipations of Perception, when Kant considers appearances not just as extensive magnitudes, but as intensive magnitudes, namely with respect to the degree or instantaneous

magnitude of their *reality*. In the Axioms of Intuition, by contrast, appearances are treated essentially as aggregates, namely discrete magnitudes, although it does turn out, when Kant introduces the issue of continuity in the Anticipations, that as extensive magnitudes appearances are also continuous – infinitely divisible – by virtue of the continuity of space and time themselves (see A169–70/B211–12).

In support of his thesis that for Kant the case of continuous magnitude is prior and that of discrete magnitude parasitic upon it, Friedman mentions a text from the Anticipations of Perception where Kant explains in what sense 13 thalers (13 coins made of silver) can be called a “quantum of silver.” According to Friedman, here Kant “asserts the priority of continuous over discrete quantity (in counting a number of coins).” If this were what Kant is asserting, it would be bizarre indeed. For counting coins certainly seems like an unambiguous case of enumerating a collection of discrete units. So what is going on here?

The example cited occurs at the end of a paragraph where Kant has argued that since space and time are *quanta continua* (continuous magnitudes), so are appearances with respect to their extensive as well as their intensive magnitude (their reality). Then comes the obvious objection: is there nothing discrete in nature? Kant’s response: a discrete collection, where “the synthesis of the manifold is interrupted,” is an aggregate of appearances, not itself an appearance as a *quantum* (something that is itself one and can be quantitatively determined). This is where the example of the 13 thalers comes into play. They can be called a *quantum* only if I consider them as a given amount of silver (it is then a *quantum discretum*, an amount of one and the same stuff [silver] that nevertheless happens to be divided into parts). But as a collection of coins, it is not a *quantum* but rather, an aggregate, that is, a *number* of coins. Note that number is here associated with what is just an aggregate, a discrete collection, and not a *quantum*, even presented as a discrete collection of parts. However, Kant adds,

Since all numbers must have their ground in unity [*Da nun bei aller Zahl doch Einheit zum Grunde liegen muss*], the appearance as unity must be the ground, and as such, a continuum. (A171/B212)

The question is: what does Kant mean by “all numbers must have their ground in unity”? Does he mean that they presuppose a *quantum* to be measured by way of number (as Friedman’s interpretation would imply)? Or does he mean that they presuppose units that must be successively synthesized? Although there are certainly arguments in

favor of the former interpretation,¹² I think the latter is more plausible, for at least two reasons. First, this reading agrees with Kant's mention of *Einheit* in connection with number and addition, in the Axioms of Intuition. Kant writes:

Insofar as here [namely, in addition of numbers] one considers only the synthesis of the homogeneous [of the units, *Einheiten*], the synthesis can occur, in one way only, however universal the use of numbers can be. (A164/B205)

(See the similar use of *Einheit* in reference to points and fingers, in the Introduction to *Critique of Pure Reason*, B15/16.)

Second, understanding *Einheit* as the unit presupposed in number rather than the unity of the *quantum* number would serve to measure, seems essential to the argument Kant wants to make in the passage where the example of the 13 thalers occurs. The idea is: of course 13 coins are a discrete collection, or aggregate. But any such collection presupposes empirically given units which alone can be called appearances (the collection is just an aggregate thereof); and they, the individual appearances that serve as units, are *quanta*, and as such, *continua*. So, there is no exception whatsoever to the statement: all appearances are *quanta continua*. Friedman is mistaken, I think, in maintaining that this is a statement about the mathematical primacy of continuous over discrete magnitudes. Rather, it is a statement that emphatically stresses the strict universality of the synthetic a priori judgment: "all appearances are continuous magnitudes."

In the end, I would suggest that my disagreement with Friedman about the primacy of continuous or discrete magnitudes in Kant's treatment of quantity boils down to this: Friedman's concern is to show how Kant's categories of quantity are applied to appearances, first in the Principles of the Pure Understanding (the Axioms of Intuition and Anticipations of Perception, in the *Critique of Pure Reason*) and then in their instantiation to the empirical concept of matter (in Kant's *Metaphysical Foundations of Natural Science*). My concern is with Kant's investigation into the origin of the categories of quantity (metaphysical deduction), the justification of their application to appearances

¹² "Unity" can refer to the chunk of matter distributed into discrete pieces of silver as well as to the discrete units (the coins). The same difficulty holds in the case of matter itself. Matter is continuous, and thus one (in fact, the one and only *substantia phaenomenon*). But it is distributed into discrete things, each of which is continuous, and can also be divided into discrete parts, and so on.

(transcendental deduction), and the proof of the principles. As Friedman correctly remarks, I say relatively little about the relationship between the Principles of the first *Critique* and Kant's views about natural science. So, in a way, my story ends where Friedman's begins. Now one may wonder whether it would not be wiser to drop the side of the story I have been trying to account for, and to start our reading of the *Critique* with the System of Principles rather than with the metaphysical or even the transcendental deduction of the categories. This is an option that has been strongly advocated, in the history of post-Kantian philosophy, by Cohen and his neo-Kantian followers, a tradition Friedman wants to uphold. But I hold the contrary view. I think we have much to gain by paying attention to what the neo-Kantians generally downplayed: Kant's claims about the nature of discursive understanding (and thus the role of what he calls "general logic") and its relation to a priori forms of sensible intuition.

Let me now consider Michael Friedman's second example, my treatment of the relational categories: substance, causality, and universal interaction.

Substance, causality, interaction

Friedman maintains that by emphasizing as I do Kant's metaphysical deduction of the categories, I end up attributing to Kant an Aristotelian metaphysics of nature that is clearly at odds with his avowed Newtonianism. Friedman nevertheless credits me with recognizing in crucial instances the non-Aristotelian features of Kant's relational categories, e.g. Kant's statement of the absolute permanence of substance in the First Analogy of Experience; and his statement of the universal reciprocal action of material substances in the Third Analogy. However, according to Friedman all this means is that I have brought to light some fundamental tensions in Kant's metaphysics of nature, without being myself sufficiently aware of these tensions. I thus fail to raise the question that looms large in the wake of my book: does Kant's philosophy have the resources to resolve them?

Friedman is correct in stressing that I do not address the question of the respective weight of Aristotelianism and Newtonianism in Kant's natural philosophy. This was not the object of my book. Rather, my concern was with Kant's theory of judgment, Kant's explanation of the relationship between logical forms and categories in the various stages of the argument of the first *Critique*, and the light this sheds on Kant's

critical system as a whole, especially the theory of judgment in the third *Critique*. Still, it is true that if my account of these issues leads to the deeply problematic conclusions that Friedman thinks it does where Kant's natural philosophy is concerned, the thesis I defend runs into serious trouble. But I do not think my account leads to such problematic conclusions. On the contrary, I think it alone can offer a satisfactory explanation of what Friedman calls the "tension" between Aristotelianism and Newtonianism in Kant's natural philosophy.

To see this, one needs again to pay attention to the distinct and complementary roles Kant assigns to the logical forms of judgment, on the one hand, and to the pure forms of intuition and synthesis of imagination, on the other hand. I will show this by briefly reviewing my account of Kant's argument in each Analogy, following the order of Friedman's comments. I will thus consider, first, substance and universal interaction (the First and Third Analogies of Experience); second, causal connection (the Second Analogy).

Substance, and universal interaction

As I understand him, Kant argues in the First Analogy that we experience objective succession or simultaneity only as the succession or simultaneity of the accidental states of empirical substances, namely empirical objects that we recognize under their essential properties – the properties they could not cease to have without ceasing to be the objects they are.¹³ Now, according to the metaphysical and transcendental deductions of the categories, what makes us capable of so ordering our representations in time is the "effect of the understanding on sensibility" (B152), guiding the syntheses of manifolds in sensibility in such a way that empirical objects can eventually be reflected under concepts according to the form of categorical judgments (completed by those of hypothetical and disjunctive judgments, as the arguments for the second and third analogies will show).

Up to this point in the argument, we have grounds sufficient only to infer the relative permanence of substances, substances that might appear and disappear, but that throughout their existence have some essential features by which we recognize them as the (relatively permanent) substances they are (Descartes' piece of wax, say, or the moon and

¹³ See *KCJ*, pp. 334–7.

earth in Kant's Third Analogy). So the question is: how does Kant's argument progress from this merely relative permanence to affirming the absolute permanence of substances? My answer is that he makes this move by appealing to our a priori intuition of time as the condition of possibility of experience, and therefore (according to the transcendental deduction of the categories) as the condition of possibility of all objects of experience. Time itself is permanent: we intuit a priori (i.e. imagine a priori) one and the same time in which all objects of experience are ordered. But, as Kant affirms in each of the Analogies and in the general principle of the Analogies, time cannot itself be perceived. Therefore, the unity and unicity of time (the representation of all time relations as unified and existing in one and the same time) can have empirical reality only if all changes, without exception – including the coming into existence and going out of existence of what I have called the “relatively permanent substances,” e.g. the coalescing and melting of Descartes' piece of wax or perhaps the aggregation or disintegration of Kant's moon and earth in the Third Analogy – all changes are changes of states of some absolutely permanent substance. And of course it is this absolutely permanent substance that is instantiated, in Kant's *Metaphysical Foundations of Natural Science*, in the empirical concept of matter, the object of Newtonian science.

What is interesting here is that if my reading is correct, Kant's argument is an attempt to account both for the pull of Aristotelianism in our ordinary perceptual world and for the truth of Newtonianism. But grounding the truth of Newtonianism is also determining the limits of its application, since affirming the absolute permanence of material substances is premised on our pure intuition (in imagination) of one unified time as the condition of possibility of our experiencing any independently existing objects at all, and thus of there being any such objects for us.

Kant's argument in the Third Analogy rests on a similar appeal to the threefold source of our representation of objective time determinations: (1) the discursive source (our logical forms of judgment); (2) the intuitive source (space and time as the pure forms of our sensible intuition); and (3) the a priori syntheses of imagination that bring it about that appearances are combined in such ways that they can be reflected under concepts according to the logical forms of our judgments. I will not attempt here to rehearse Kant's argument in all its complexity. I will recall only enough to help me answer Friedman's principled objection to my interpretation.

Friedman maintains that because of the Aristotelian view of nature I supposedly attribute to Kant, I make it incomprehensible why it should be an a priori law of nature that substances are in relations of universal interaction. Only on Newton's concept of gravitational force, Friedman urges, is it the case that every action must have an equal and opposite reaction. No such necessity exists on an Aristotelian view of substance.¹⁴ Now, I have suggested above that Kant's argument in the First Analogy of Experience accounts both for the pull of Aristotelianism in our ordinary perception and for the progress from what we might call this "manifest image" to the Newtonian "scientific image" of the world.¹⁵ In other words, in my understanding of Kant's argument, the mental capacities at work in generating the Aristotelian image of the world also explain why it was both possible and necessary that this image be eventually superseded by a Newtonian (mathematical) worldview. The same is true of Kant's argument in the Third Analogy. Here what we need to understand is why Kant thinks that the same capacities that generate the representation of objective simultaneity among the objects of our ordinary perceptual world also provide us with the a priori knowledge that they exist in relations of universal reciprocal action.

As I understand it, Kant's argument is along the following lines: we experience individual material things as existing simultaneously in space only if we combine (synthesize) our perceptions of things present to our senses with our representations (in imagination) of things not present to our senses, in such a way that they can be reflected under concepts combined in reciprocal hypothetical judgments, such as: "If A is present to my senses at time t at point p_1 relative to my own body, then B (which

¹⁴ See Friedman, "Logical forms," p. 209:

On the Aristotelian conception of the community of substances in space, there is no particular need for *reciprocal* interaction. The sun influences changing objects of the earth, for example, but since the sun undergoes no actual change itself, neither the earth nor objects upon it influence the sun in turn. In Kant's Newtonian conception, by contrast, every action must have an equal and opposite reaction, and so the earth does necessarily influence the sun in turn – through its own (relatively small) gravitational force.

¹⁵ See above, p. 54. What I mean is that in my reading, Kant accounts both for the fact that the world appears to us as a world of only relatively permanent, qualitatively determined things, subject to generation and corruption (this is what I call the "pull of Aristotelianism in our ordinary perceptual world"), and for the fact that ultimately, the unity of the time-determinations of appearances depends on our recognizing the existence of one substance, matter, whose states change according to universal mathematical laws (the Newtonian view of nature).

is not present to my senses) is also present at this same time t , at point p_2 relative to my own body; and conversely, if B is present to my senses at time t at point p_2 relative to my own body, then A (which is not present to my senses) is also present at this same time t , at point p_1 relative to my own body." This is of course far from a representation of causal interaction. However, if we generalize these statements to the reciprocal conditioning of all things with respect to their places and changes of place, states and changes of states, in one space and one time (in which our own body is also situated), then we obtain the idea that all material substances, insofar as they are perceived (experienced) as existing simultaneously, stand in relations of universal reciprocal determination such that each and every substance's being at a certain place, in a given state, at a given time, is a determining ground for each and every other substance's being in a given place, in a given state, at that same time. This (as yet indeterminate) notion of reciprocal determination of position and state, when instantiated to the empirical concept of material substance as something movable in space, is presupposed in Newton's Third Law of Motion. And as Friedman has shown, the latter, when instantiated to the Keplerian regularities in the motions of celestial bodies, leads to Newton's formulation of the empirical law of universal gravitation.¹⁶

If this explanation is correct, then Kant holds that although it is only with Newton's mathematical science of nature (prepared by Kepler, Copernicus, Galileo, Descartes, and others) that a determinate notion of universal interaction is formulated and expressed in a mathematical law, an implicit, indeterminate notion of the reciprocal determination of things and their states has to be at work in each and every one of our experiences of the objective simultaneity of things (where "experience" does not mean mere sense perception, but the synthesis of perceptions by means of which they are related to independently existing objects that they are taken to be the perception of). This indeterminate notion is a far cry from Newton's law of the equality of action and reaction of moving forces (the Third Law of Motion in the *Principia*) and even further from the mathematical law of universal gravitation. But Kant's point is that in order to formulate these laws we need to have an a priori principle stating that all

¹⁶ See Michael Friedman, "Causal laws and the foundations of natural science," in Paul Guyer (ed.), *The Cambridge Companion to Kant* (Cambridge: Cambridge University Press, 1992), pp. 161–99.

appearances stand in universal reciprocal determination. For – as Kant argues in the *Metaphysical Foundations of Natural Science* – this principle is presupposed in Newton’s third law,¹⁷ which is itself presupposed in Newton’s proof of the inverse square law. The justification of this principle is provided by the argument of the Third Analogy: we would have no experience of identifiable and re-identifiable objects existing simultaneously in space unless we presupposed the universal reciprocal determination of their positions and states; now, according to the Transcendental Deduction of the Categories, the conditions of possibility of experience are the conditions of possibility of the object of experience; so, there would be no objects of experience simultaneously existing in space unless they were in universal reciprocal determination of their positions and states.

Because they are thus individuated in one space and one time by way of the universal mutual determination of their positions and states, appearances can be known under concepts according to a universal subordination of genera and species for which the discursive form is the form of disjunctive judgment. This, I argue, is the explanation for the correspondence, in the *Metaphysical Deduction of the Categories*, between the logical form of disjunctive judgment and the category of community (universal interaction): the category of community is the concept guiding the syntheses of appearances so that they can be reflected under concepts according to the logical form of disjunctive judgment. Now, Friedman objects that he simply does not see how only a Newtonian conception of interaction makes possible concept formation generating a universal subordination of genera and species.¹⁸ But that is not what I say. Certainly an Aristotelian view of nature does represent it according to universal subordinations of genera and species. Indeed Kant explicitly acknowledges the Aristotelian ancestry of this discursive form of systematicity.¹⁹ What I maintain is that according to Kant, since material things are individuated in space and recognized as existing at the same time only by way of the presupposition, which eventually becomes the determinate knowledge, of their universal reciprocal action, the concepts of natural kinds under which they are recognized and combined according to the form of disjunctive judgment – which is

¹⁷ Immanuel Kant, *Metaphysical Foundations of Natural Science*, trans. Michael Friedman (Cambridge: Cambridge University Press, 2004), AArv, p. 544.

¹⁸ See Friedman, “Logical forms,” p. 210.

¹⁹ See *Critique of the Power of Judgment*, First Introduction, AAxx, pp. 214–15.

the form according to which our concepts of natural kinds are coordinated and subordinated to one another – these concepts of natural kinds are concepts of relational properties: forces. This is confirmed by the appendix to the Transcendental Dialectic, where Kant insists that the highest goal of natural science is to order all its concepts of force under that of “one and the same moving force” (A663/B681).

Causality

Like Friedman, I insist that according to Kant, Newtonian science rests on the presupposition of the universal validity of the causal principle. But precisely for this reason, I maintain that Newtonian science is of no use at all to prove the causal principle: this would be circular. So what we need to know is: how does Kant prove its validity with respect to all appearances, namely all objects that appear to our senses? Here again the answer I propose rests on my analysis of Kant’s account of the ways in which figurative synthesis generates our representation of the objective ordering of appearances in time. In this case, I argue that according to Kant, we would not even experience a succession as an objective succession unless this succession appeared to “presuppose something upon which it follows according to a rule” (A189). Because this is a necessary presupposition of any experience of objective succession, experiencing such a succession is also looking for the “something upon which it follows, according to a rule.” That is to say, experiencing a succession as objective is also looking for the event or state of affairs that might be known as an instantiation of the antecedent of a hypothetical rule whose consequent is instantiated by the given objective succession. What the antecedent is, we can find out only empirically. But the principle according to which there is such an antecedent is an a priori law, and thus absolutely necessary. And the connection we have found empirically, if true (namely, if we have correctly identified the relevant connection in relation to the unity of experience) is a necessary connection.

I nowhere state, nor do I for a moment entertain, the view attributed to me by Michael Friedman that Kant defends a strictly inductive method for discovering causal connections. On the contrary, I argue that for Kant what makes it possible for us to progress from the mere hypothetical judgment “if the sun shines on the stone, the stone gets warm” to the causal judgment, “the sun warms the stone,” is that we have already presupposed the a priori validity of the causal principle. And what makes such a presupposition legitimate is the argument I just

recalled: no objective succession would be experienced unless its perception had been obtained (“synthesized”) in accordance with the causal principle (namely under the presupposition that “something precedes, upon which it follows according to a rule”). This being granted, it remains that in Kant’s own words, the sensible mark by which we recognize the existence of a causal connection is the constant conjunction of similar events or states of affairs: in the chapter on the Schematism of the Pure Concepts of the Understanding, Kant defines the schema of cause as “the real which, whenever posited, something else always follows. It consists therefore in the succession of the manifold, insofar as it is subject to a rule” (A144/B183).

In the Second Analogy, after expounding his argument for the claim that presupposing the truth of the causal principle is an *a priori* condition of all experience, Kant considers a possible objection to this view. It might seem, he says, that this claim contradicts the observations we all make, according to which it is only by witnessing repeated similar sequences of events that we come up with a rule for these sequences, and thus form a concept of causal connection: thus the concept would appear to be empirical after all. Kant’s reply is that it is here as with all other *a priori* representations: we draw them out of experience, as clear concepts, only because we have put them there in the first place (see A195–6/B240–1).

Now, Friedman objects to my citing this passage in support of my claim that for Kant, particular causal connections are known only from experience. According to Friedman, in referring to the “common observation” according to which our knowledge of particular causal rules is acquired empirically, Kant is not expressing his own view. Rather, he is giving voice to a view he expressly opposes. But I think Friedman’s interpretation is not supported by the text. He may be misled by Kemp Smith’s translation, which says:

This [i.e. the statement that the truth of the causal principle is an *a priori* presupposition of all experience] may seem to contradict all that has hitherto been taught in regard to the procedure of our understanding. The accepted view is that only through the perception and comparison of events repeatedly following in a uniform manner upon preceding appearances are we enabled to discover a rule according to which, etc. . . .

But the text really says:

This may seem to contradict all the remarks [*Bemerkungen*] that have always been made about the way our understanding proceeds; according

to those remarks, only through the perception and comparison of events repeatedly following in a uniform manner . . . are we enabled to discover a rule, etc. . . . (A195–6/B240–1, my translation)²⁰

Later in the same paragraph, Kant continues:

The case is the same here as with other pure *a priori* representations (e.g. space and time) that we can extract as clear concepts from experience only because we have put them into experience, and experience is hence brought about through them. (ibid.)

What Kant is opposing, then, is the view that just as particular causal connections are known empirically, so is the universal causal principle itself. In other words, he opposes the inference from the empirical character of our knowledge of particular causal connections to the empirical character of our knowledge of the causal principle itself. The same point is made even more explicitly in the *Transcendental Methodology*:

If wax that was previously firm melts, I can cognize *a priori* that something must have preceded (e.g. the heat of the sun) on which this has followed in accordance with constant law, though without experience, to be sure, I could *determinately* cognize neither the cause from the effect nor the effect from the cause *a priori* and without instruction from experience. [Hume] therefore falsely inferred from the contingency of our determination *in accordance with the law* the contingency of *the law* itself . . . (A766/B794)

Friedman charges that in stressing as I do the empirical character of our knowledge of particular causal connections, I make Kant a proponent of a Baconian inductivist method in natural science. It is true that I relate Kant's analysis of the transition from judgments of perception to judgments of experience, in the *Prolegomena*, to the striking reference Kant makes to Bacon in the B Preface of the *Critique of Pure Reason*. There Kant credits Bacon with having "partly occasioned, and partly further stimulated, since one was already on its track, [a] discovery [which] can . . . be explained by a sudden revolution in the way of

²⁰ At the time of my discussion with Friedman, the Guyer and Wood translation had only recently appeared, and Kemp Smith's was still the most familiar. The translation I give here is the one I offered at the time, against Kemp Smith's. For all other citations I return to Guyer and Wood's translation, unless otherwise indicated. On the particular point at hand, Guyer and Wood concur with me in not attributing to Kant Kemp Smith's misleading disclaimer: "The accepted view is that . . ."

thinking" (Bxii).²¹ The "discovery" Kant refers to is that "in order to know something securely *a priori*, [one] had to ascribe to the thing nothing except what followed necessarily from what [one] had put into it in accordance with one's concept." After thus crediting Bacon, Kant adds: "Here I will consider natural science only insofar as it is grounded on *empirical* principles" (this is in contrast to geometry and its constructions according to a priori concepts, for which he cited earlier the example of Thales). He then cites as examples of the "revolution in the manner of thinking" in natural science, Galileo's experiments with the inclined plane, Torricelli's experiments with atmospheric pressure, and even (less felicitously) Stahl's experiments in transforming metal into calcar. The point appears to be, then, that even Bacon, the inspirer of a strictly empirical method in natural science, really participates in the "revolution in the way of thinking" characteristic of modern science, for even he taught his contemporaries that "reason must approach nature with its principles in one hand, according to which alone the agreement among appearances can count as laws, and, in the other hand, the experiments thought out in accordance with these principles" (Bxiii). In *KCJ* I suggest that here Kant may have in mind Bacon's explanation of the method of "crucial experiments," which he admittedly interprets in strangely aprioristic terms.²² If my reading is correct, Kant's reference to Bacon is meant to show that although all natural science (and therefore Newtonian science itself) is empirical science, it would be impossible unless it could rely on strictly a priori principles.

To sum up: the reason I do not take myself to attribute to Kant the defense of a strictly inductivist method in natural science is twofold. First, for Kant as I understand him, although all knowledge of any particular empirical connection is empirical, it rests on a presupposition that is not empirical, but a priori: that of the universal validity of the causal principle. Second, even though the schema of causality, and so the empirical feature of objects of experience by which we will be alerted to the presence of a causal connection, is, as it was for Hume, the repetition of generically identical sequences of events or states of affairs ("the real upon which, whenever it is posited, something else always follows" [A144/B183]), nevertheless what makes possible the universalization of

²¹ Cf. *KCJ*, p. 176.

²² See *KCJ*, pp. 176–7, nn. 22 and 23.

such observed correlations into causal connections is the use of mathematical concepts and methods to formulate universal laws of nature.²³

Concluding remarks

In his concluding remarks, Friedman quotes Cassirer's charge (in his 1910 book, *Substanzbegriff und Funktionsbegriff*)²⁴ according to which the Aristotelian theory of concepts and concept formation is responsible for the errors both of rational metaphysics and of traditional empiricism, and is in fundamental tension with the modern mathematical science of nature. According to Friedman, my book brought to unprecedented light the fact that precisely this tension between Aristotelianism and Newtonianism is at the core of Kant's critical philosophy. For I am supposed to have shown that in his metaphysical deduction of the categories, Kant adopts an Aristotelian view of concepts, judgments, and concept formation. But in the *System of Principles of the Critique of Pure Reason* and in the *Metaphysical Foundations of Natural Science* he is a clear proponent of Newtonianism and the mathematical method in natural science. Because I have not perceived the tension my own analyses thus revealed, I have not asked the question Friedman now asks: does Kant have the resources to resolve it?

But does Kant defend an Aristotelian theory of concepts and concept formation, in the metaphysical deduction of the categories? I do not think he does. Indeed one of the grounding theses of my book is that although the forms of Kant's "general pure logic" are essentially Aristotelian, the use he argues we make of them in cognition is a radical break from the Aristotelian view of concept formation shared by his predecessors in the German *Schulphilosophie*, for two reasons: (1) because for him the form of judgment is prior to its matter (concepts and objects), so that even the most strictly empirical concepts are formed under the guidance of the acts of judging and their forms; and (2) because before any such acts of empirical concept formation, synthesis, that is, combination in imagination of manifolds in space and time, must have occurred. In insisting on these two aspects of Kant's anti-abstractionist view of concept formation, I am in agreement with Cassirer, whose main target,

²³ On this point, see also ch. 6 in this volume, especially pp. 172–7.

²⁴ Ernst Cassirer, *Substanzbegriff und Funktionsbegriff. Untersuchungen über die Grundfragen der Erkenntniskritik* (Berlin 1910, repr. Darmstadt: Wissenschaftliche Buchgesellschaft, 1969). Transl. W. C. Swabey and M. C. Swabey, *Substance and Function* (New York: Dover, 1953). References to the text are given in the German edition.

when he attacks the modern, psychologistic version of Aristotelian abstractionism, is quite explicitly Mill, not Kant.²⁵

What Cassirer does challenge in Kant is the view that understanding the nature of mathematical concepts is understanding the ways in which they are grounded in pure acts of the mind. To this view and to the role Kant assigns to the pure intuition of time in generating concepts of number, Cassirer opposes Frege's and Dedekind's logicist program of a purely logical derivation of arithmetical concepts and laws. Only this program and the modern quantificational logic of relations that makes it possible, says Cassirer, can reliably overcome the old Aristotelian view of concepts and the ontological primacy of substance over relations.²⁶ This leaves us, it seems to me, with a question slightly different from the one Friedman reproaches me for not having formulated. Friedman's question is: "Does Kant's epistemology have the resources to resolve the tension between Aristotelianism and Newtonianism in Kant's natural philosophy?" To this question I have argued that the answer is, yes, Kant does have the resources: the pure forms of intuition as the pure forms of manifoldness, distinct from and complementary to the forms of discursive concepts and concept formation. But the next question is: if these resources offer the means to understand the move from Aristotelianism to Newtonianism, do they also offer the means to understand the nineteenth- and twentieth-century superseding of Newtonian natural science, with its reliance on Euclidean space and strictly deterministic causal laws? Interestingly, Kant's theory of space and time as pure forms of intuition, which bears the brunt of Kant's account for the move from Aristotelianism to modern mathematical natural science, is also what primarily needs to be revisited in order to come to terms with later developments in mathematics, their relation to logic, and their application in natural science. I suggest that a re-examination of Kant's theory of space and time should not neglect either of its aspects: neither Kant's view of the role of spatiotemporal intuition in representing the middle-sized objects of our ordinary perceptual experience, nor the role of spatiotemporal intuition in grounding our scientific worldview. Under both aspects such a re-examination was beyond the scope and ambition of my book.

²⁵ For Aristotle's view, see *Posterior Analytics* II, 19, 99b15–100b18, where Aristotle explains that universals are deposited in our minds by the repeated perception of sensible individuals. Nothing could be further from Kant's view of concept formation. On Cassirer's criticism of Mill, see *Substanzbegriff und Funktionsbegriff*, ch. 1.

²⁶ See *Substanzbegriff und Funktionsbegriff*, chs. 2 and 3.

SYNTHESIS AND GIVENNESS

In the essay that accompanies his translation of Kant's "Über Kästners Abhandlungen",¹ Michel Fichant discusses some of the analyses I proposed in my book (*KPJ*).² His discussion of my view centers on the nature of space as put forth in the *Critique of Pure Reason*. More specifically, it centers on the distinction between "form of intuition" and

¹ Michel Fichant, "L'Espace est représenté comme une grandeur infinie donnée'. La radicalité de l'Esthétique" ["Space is represented as an infinite given magnitude': the radicality of the Aesthetic"], *Philosophie*, no. 56 (1997), pp. 20–48 (henceforth "L'Espace"). This article follows Fichant's presentation (pp. 3–12, henceforth "Presentation") and translation into French of Kant's essay "Über Kästners Abhandlungen" ("On Kästner's articles") AAxx, pp. 410–23 (pp. 12–20). Kästner was a mathematician whose three articles ("What does possible mean in Euclid's geometry?"; "On the mathematical concept of space"; "On the axioms of geometry") were published in Eberhard's *Philosophisches Magazin*, as part of Eberhard's attempt to prove the superiority of the Leibnizian view over the Kantian view of mathematics. Kant counters Eberhard by claiming that Kästner's view is in fact in complete agreement with his own. Kant's essay on Kästner's articles contains some of his most illuminating remarks on space as a pure intuition, and its relation to geometry.

² Michel Fichant's article is an analysis of Kant's view of space in contrast to that of Kant's Leibnizian predecessors. Fichant's discussion of my thesis concerning the relation between "form of intuition" and "formal intuition" according to Kant is only a subsidiary discussion, occupying a few pages in the main article: see pp. 35–8 and *passim*. I found his discussion insightful and challenging, I am grateful to him for giving me this occasion to attempt a clarification of my view. In this English version of my response, when citing Fichant's discussion I will give his own references to *KPJ*, and then give the corresponding page in *KCJ*. In the cases where references to my book are my own, I will refer only to *KCJ*.

“formal intuition” (introduced by Kant in §26 of the Transcendental Deduction in the second edition of the *Critique*), and on the phrase in the Transcendental Aesthetic according to which space is “represented as an infinite given magnitude” (B40). Michel Fichant thinks that the explanation I propose for Kant’s distinction leads me to intellectualize the forms of sensibility expounded in the Transcendental Aesthetic and, true to a tradition begun by Fichte and represented in France by Lachièze-Rey among others, leads me, in effect, to deny that Kant grants any independence to sensibility with respect to the understanding.³

This last reproach surprises me. Recognizing the irreducible character of sensibility in the Kantian conception of knowledge is of central importance to the argument of my book. More particularly, I try to elucidate the consequences of the irreducibly receptive character of our sensibility for Kant’s conception of the logical-discursive forms themselves, that is, of the forms of spontaneity. In fact, Michel Fichant takes pains to make clear that his criticism concerns only a “side issue” in my book, and in no way challenges its central thesis.⁴ But if he is right, then this means that the thesis I am defending with respect to space and time is incompatible with the theses I defend in the rest of my book. So I still need to answer the charge that I might be taking back with one hand what I had granted with the other.

Michel Fichant is certainly right to say that we disagree on the particular issues at hand (Kant’s distinction between “form of intuition” and “formal intuition,” and the role of imagination in our representation of space and time). Yet I do not think that the position he attributes to me is the one I defend. I think our disagreement concerns four main issues: (1) Kant’s view of the relation between the functions of the understanding and the forms of sensibility; (2) Kant’s footnote to §26 of the Transcendental Deduction, where he introduces the distinction between forms of intuition and formal intuition; (3) the meaning of the expression *ens imaginarium*, which Kant uses to describe space and time; (4) the relation between space as *quantum* and the category of quantity (*quantitas*). In what follows I will try to clarify my position on each of these points and explain what I believe to be the nature of our disagreement.

³ Fichant, “L’Espace,” p. 24, n. 11.

⁴ *Ibid.*, p. 35, n. 30.

Understanding and sensibility

Michel Fichant thinks that my view is in some ways similar to that of Cassirer, for whom “the functions of the understanding are the preconditions for ‘sensibility’.”⁵ Yet nowhere do I defend such a statement. On the contrary, I expressly state that the radical distinction between sensibility, endowed with forms specific to it, and the understanding, with its logical forms or functions, is at the heart of Kant’s argument from one end of the *Critique* to the other, and in particular in the sections that are the main target of my investigation, the Transcendental Deduction of the Categories and the System of Principles. Our real quarrel does not lie here. Rather, it concerns the question whether I am right to maintain that Kant’s presentation of space and time in the Transcendental Aesthetic, while fully belonging in an aesthetic in Kant’s sense, that is, in a science of the rules of sensibility or receptivity, is nevertheless seen in a new light when the reference to the *synthesis speciosa* (i.e. the figurative synthesis, or the transcendental synthesis of imagination), is introduced into the argument of the Transcendental Deduction of the Categories. In my account, it then appears that space and time, as described in the Transcendental Aesthetic, certainly belong to sensibility, but to a sensibility affected (and not generated, a point about which my position differs from that of Fichte!) by spontaneity, that is, by the understanding. In the Transcendental Aesthetic, Kant could not mention this “affection by the understanding,” nor did he need to mention it. Indeed it appears briefly only in the second edition, in an addition to the exposition of time (B67–8). Kant did not need to mention it because what is important in the Aesthetic is to show that space and time are originally intuitions (“singular and immediate representations”) and not concepts (“universal and reflected representations”), that they are sensible (a form or mode of ordering according to which we receive “inner” and “outer” impressions) and not intellectual (a function by which we produce concepts). The further point that singular representations of space and time, sensible though they may be, depend on a *synthesis speciosa*, that is, a transcendental synthesis of imagination, is not important to the specific argument of the Aesthetic. Nor could Kant have argued for this point, had he wanted to. For at that stage in the *Critique* he had none of the tools necessary for explaining the nature of the *synthesis speciosa*, since the

⁵ Ernst Cassirer, “Kant und die moderne Mathematik,” in *Kantstudien*, no. 12 (1907), p. 35. Cited by Fichant, “L’Espace,” p. 24, n. 11.

latter depends on a “transcendental unity of self-consciousness” whose status is explained and justified only in the Transcendental Deduction of the Categories. It is also in the latter that the distinction between form of intuition and formal intuition, and along with this distinction, what I have called a “re-reading” of the Transcendental Aesthetic, come into play. Contrary to what Fichant seems to believe, according to me this re-reading is neither a correction of the Aesthetic’s content, nor a rectification of its place within the *Critique*. Rather, it is an added explanation: the explanation of the relation of space and time to the unity of self-consciousness, an explanation that can be provided only in the context of the Transcendental Deduction of the Categories.

It is on this last point that there remains a significant disagreement between Fichant and myself. Michel Fichant thinks I am wrong to believe that the argument in the second part of the Transcendental Deduction leads Kant to affirm that the forms of intuition or pure intuitions, described in the Aesthetic – whether we are talking about space or about time – are forms of a sensibility affected by the understanding. This is why he refuses the identification I am proposing between “form of intuition” – at least in one of its meanings, which, in my view, is that of most of its occurrences in the Transcendental Aesthetic – and “formal intuition.”

Form of intuition and formal intuition

Michel Fichant asserts that “no textual evidence” supports the identity I suggest that Kant intends to maintain between the form of intuition (or pure intuition) of the Transcendental Aesthetic, and the formal intuition of the Transcendental Deduction of the Categories.⁶ And yet he himself cites (although relegating them to a footnote) two texts, quoted in my book, in which Kant “expressly identifies form of intuition and formal intuition.”⁷ So much for “no textual evidence.” But this is not what is essential for my purpose. What is essential lies in §26 of the Transcendental Deduction and its footnote, which lend support to my interpretation of the two instances of “express identification” acknowledged by Fichant. Here is the passage from §26, and its footnote:

⁶ Fichant, “L’Espace,” p. 35.

⁷ *Ibid.*, p. 37, n. 32; cf. *KCJ*, pp. 221–2. The texts cited are B457, and *On a Discovery*, AAVIII, pp. 222–3.

But space and time are represented *a priori* not merely as forms of sensible intuition, but also as *intuitions* themselves (which contain a manifold), and thus with the determination of the *unity* of this manifold in them (see the Transcendental Aesthetic).*

*Space, represented as *object* (as is really required in geometry), contains more than the mere form of intuition, namely the *comprehension* of the manifold given in accordance with the form of sensibility in an *intuitive* representation, so that the *form of intuition* merely gives the manifold, but the *formal intuition* gives unity of the representation. In the Aesthetic I ascribed this unity merely to sensibility, only in order to note that it precedes all concepts, though to be sure it presupposes a synthesis, which does not belong to the senses but through which all concepts of space and time first become possible. For since through it (as the understanding determines the sensibility) space or time are first *given* as intuitions, the unity of this *a priori* intuition belongs to space and time, and not to the concept of the understanding. (B160 and B160–1n)

As we can see, Kant expressly states here that the same unity of intuition that he had attributed, in the Transcendental Aesthetic, to sensibility alone because it is anterior to all concepts must now be held to suppose a synthesis by which “space and time are first given as intuitions.” Michel Fichant probably thinks that the unity in question here is the unity of particular figures in space, resulting from the construction of geometrical concepts.⁸ But the text, it seems to me, does not allow this interpretation, since it expressly states that the unity in question precedes all concepts. What is in question here is space as one whole, and time as one whole, within which all particular figures and durations are delineated. How can space and time as a whole nevertheless result from an “affection of sensibility by the understanding?” In my view, this is because the understanding in question is none other than the “transcendental unity of apperception,” which, Kant explains in the

⁸ Cf. “Présentation,” p. 11, where Fichant cites the following sentence from Kant’s essay on Kästner’s articles: “Objectively given space is always finite” (AAxx, p. 420, cf. Fichant’s translation, p. 18). Fichant concludes this sentence in his own way, writing: “since it is only attained by the construction which subordinates it to the concept in order to make of it a formal intuition.” Yet Kant does not use the term “formal intuition” in this text. Kant opposes the finite space resulting from construction under concepts to the infinite space of the metaphysician, which the geometrician must presuppose. This space, he says, is a “pure form of the subject’s sensible mode of representation as *a priori* intuition.” We must therefore ask ourselves which of the two descriptions of space (finite space constructed under concepts or the infinite space presupposed by this construction) corresponds to what is described, in the note to §26, as a “formal intuition,” which, Kant specifies, “precedes all concepts.”

arguments of the Metaphysical Deduction and the Transcendental Deduction of the Categories, is the source of a synthesis of what is given in sensibility prior to any analysis (and thus prior to any concept). To describe this, I have used the expression “pre-discursive understanding,” and I have proposed the idea that our “capacity to judge” (*Vermögen zu urteilen*, to be distinguished from the power of judgment, or *Urteilkraft*), determining our sensibility (the expression is Kant’s: see the text quoted above), generates the representation in imagination of one, undivided space and one, undivided time, within which all spatial or temporal extension is to be delineated.

I cannot restate here the whole exposition and defense of the point I make in *KCJ*. I would like simply to emphasize this: my interpretation has the advantage of taking into account not only all of Kant’s formulations in the footnote cited above but also the function of this text in the general structure of Kant’s argument in the Transcendental Deduction. In the main text to which the footnote is appended, Kant expressly states that what he now intends to do is to consider “whatever comes before our senses,” in order to comprehend how appearances can fall under the laws of the understanding. The interpretation I am proposing for Kant’s answer to this question differs both from Heidegger’s response, asserting that imagination is the “common root” of sensibility and the understanding, and from Cassirer’s response, intellectualizing sensibility. What I am proposing is that by “affecting sensibility,” spontaneity, or the mere “capacity to judge,” even before producing the least concept and thus the least judgment, promotes space and time, originally the mere forms of manifoldness (*Mannigfaltigkeit*, which translates the Latin *multitudo*), to forms of the unity of the manifold within which schemata for the categories can be delineated and the subsumption of appearances under the categories or “universal representations of pure synthesis” is thus made possible.

Fichant thinks that I “entirely make up” the idea of a “mere potentiality of form,” as one of the meanings of the expression “form of intuition.”⁹ In *KCJ* I acknowledge that the expression “potentiality of form” is my coinage, and I explain why I offer it. I relate it back to the theme of epigenesis, which is not at all made up by me.¹⁰ In any case, the fact that the term “form of intuition” has several meanings seems to me

⁹ Fichant, “‘L’Espace’,” p. 36.

¹⁰ See Longuenesse, *KCJ*, pp. 221–2, n. 17. Epigenesis is discussed in this volume, ch. 1, pp. 26–9, and ch. 2, pp. 42–3.

to be uncontroversial. In his 1790 discussion with Eberhard, Kant distinguishes the “mere formal ground” of sensibility, i.e. the form of space (and we may suppose, the form of time as well) as the form proper to the mere capacity to receive impressions, from the “form of external objects in general” or formal intuition, generated when sensible impressions provoke the activity (the term is Kant’s) of the mind and thus “the original acquisition” of the representation of space as pure intuition. Kant specifies, as he did in §26 of the Transcendental Deduction, that the original acquisition of this intuition “precedes by far the determined *concept* of things which are adequate to this form.”¹¹ I do not agree with Fichant when he claims that the formal intuition of the footnote to §26, unlike that of the response to Eberhard, is a product of a “derivative acquisition” in which “the pure concepts of the understanding play a part.”¹² Kant, as we just saw in the text quoted above, explicitly states the opposite: the formal intuition of §26 “precedes all concepts.”

The lesson I take from *On a Discovery* is thus the following: the “first formal ground of sensibility” is what I have called “mere potentiality of form” (which Kant also calls simply “form”: I will return to this point in a moment). The “formal intuition” or “pure intuition” or “form of external objects” (appearances) is in my view the form of intuition or pure intuition of the Transcendental Aesthetic, the formal intuition of the Transcendental Deduction, and the “form of intuition or formal intuition” of the note to the Transcendental Dialectic cited above. I would not say that “all distinctions between the three terms are erased” in the interpretation I propose. In fact I devote several pages to elucidating the meaning and function of their distinction.¹³ However, it is true that in my view, these different terms serve primarily to distinguish different aspects under which one and the same referent is considered: this referent is the space presupposed by geometry and whose nature metaphysicians endeavor to explain (as Kant says in his remarks on Kästner) rather than the figures in space that the geometrician constructs, or the position and spatial figures in space of the empirical objects studied by the natural sciences, both of which presuppose the formal intuition of space as one space in which geometrical figures are constructed and empirical objects are located and related to each other.

¹¹ *On a Discovery*, AA VIII, pp. 222–3. Cf. *KCJ*, p. 252.

¹² Fichant, “‘L’Espace’,” p. 37, n. 32.

¹³ *Ibid.*, p. 35; Longuenesse, *KCJ*, pp. 216–19. The three terms in question are “form of intuition,” “pure intuition,” and “formal intuition.”

I would not say either that I “reject any intrinsic difference between form of intuition and formal intuition.”¹⁴ It is true that I think the expression “form of intuition” in one of its uses, and the expression “formal intuition” have the same referent, although Kant uses one expression or the other depending on the context. But in addition, I do maintain a difference not only relative to the aspect and context in which one and the same referent is considered, but even in referent, between form of intuition as “first formal ground” of sensibility, and formal intuition. This is because in my interpretation, the form of intuition as “first formal ground of sensibility” (in *On a Discovery*) is different from the form of intuition as the form of appearances, i.e. (I maintain) formal intuition.¹⁵

Michel Fichant thinks he can draw an argument against my position from §38 of the *Prolegomena*, where Kant explains:

That which determines space to assume the form of a circle, or the figures of a cone and a sphere is the understanding, so far as it contains the ground of the unity of their constructions. The mere universal form of intuition, called space, must therefore be the substratum of all intuitions determinable to particular objects; and in it, of course, the condition of possibility and of the variety of these intuitions lies. But the unity of the objects is entirely determined by the understanding.

Fichant comments in a footnote:

This text invalidates one of the arguments by which Béatrice Longuenesse rejects any intrinsic difference between form of intuition and formal intuition: form being by definition the determination with respect to the matter which is the determinable, attempting to determine by concept the forms of intuition in order to make them into formal intuitions would be to “misinterpret the very notion of form (which would in that case, paradox of paradoxes, be characterized as that

¹⁴ “L’Espace,” p. 38, n. 34.

¹⁵ The “first formal ground of sensibility” of *On a Discovery* seems to me to be the same as what Kant calls “subjective condition regarding form” in the *Transcendental Aesthetic* (cf. A48/B65) or form of “synopsis” (cf. A94–5). This “form” or “first formal ground” is a form for the “matter” that are sensations. The “form of intuition” as “formal intuition” is a form for the “matter” that are appearances. The two meanings of the term “matter” (sensation and appearances), and the two meanings of “form” can be found, it seems to me, in this passage of the *Amphiboly of Concepts of Reflection*, in the *Critique of Pure Reason*: “the form of intuition (as a subjective constitution of sensibility [form (i)]) precedes all matter (the sensations), thus space and time [form (ii)] precede all appearances and all *data* of appearances” (A267/B323).

which is undetermined!)” (*op.cit.*, p. 248). If anyone has produced a misinterpretation, it would be, as the text of the *Prolegomena* shows, Kant himself, yet another paradox!¹⁶

I have just explained why I do not take myself to “reject any intrinsic difference” between form of intuition and formal intuition, as Fichant supposes I do. I now would like to clarify just what it is I denounce as a “misinterpretation.” I do not say or think that it would be a misinterpretation to believe that the form of intuition can be determined by concepts. What I do say is that in considering the relation between “form of intuition” and “formal intuition,” it would be paradoxical to interpret the term “form” in “form of intuition” as meaning “undetermined,” and “formal intuition” as that which is “determined” (by concepts). In making this remark, I am opposing a thesis defended by Henry Allison, mentioned in a footnote.¹⁷ But I should have been more precise. This is what I mean to say: form is always form for a matter, which it determines or orders. The form of intuition as “first formal ground of intuition” is the form for a matter, sensations. When unified under the transcendental unity of apperception, before any concept, the form of intuition is again the form for a matter, the appearance or “indeterminate object of empirical intuition”; this form, considered independently of any matter, is “pure intuition” or “formal intuition” (the space “that is needed in geometry”). Pure intuition is determined by concepts when figures are constructed in space, when spatial configurations and positions of empirical objects are schematized and recognized, and when the mathematical constructions of concepts are applied in a mathematical science of nature. Space and time are then forms for a matter, phenomena, objects of empirical intuition determined by concepts.

It is worth noticing that Kant does not use the expression “formal intuition” in the passage from §38 of the *Prolegomena* quoted above, which concerns the determination of the sensible form by concepts in the construction of figures in space. It remains Fichant’s task, then, to account for the fact that in the texts where Kant does make use of the expression – the footnote to §26 as well as *On a Discovery* – Kant says that the formal intuition precedes all concepts.

¹⁶ See *Prolegomena*, §38. Fichant, “‘L’Espace’,” p. 38, n. 34. The page reference in the citation from Fichant is to *KPJ*. Cf. *KCJ*, p. 223.

¹⁷ Longuenesse, *KCJ*, n. 18, p. 222. Cf. Henry Allison, *Kant’s Transcendental Idealism: An Interpretation and Defense*, rev. enlarged edn (New Haven: Yale University Press, 2004), pp. 112–16.

Fichant thinks one should not give too much weight to the footnote to the Transcendental Dialectic in which form of intuition and formal intuition are expressly identified (B₄₅₇). For, he says, Kant specifies in this note that space, as a form of intuition or formal intuition, “is not an object that can be intuited.” I suppose Fichant means that one cannot therefore identify the formal intuition mentioned here with the space “represented as object (as is really required in geometry)” mentioned in the footnote to §26. But in fact, what Kant says in the footnote to the Transcendental Dialectic is that “space is merely the form of outer intuition (formal intuition), but not a real object *that can be outwardly intuited* [*kein wirklicher Gegenstand, der äußerlich angeschaut werden kann*].” This is in agreement with the idea I am defending and Fichant is opposing, that space, as one and infinite, is an *ens imaginarium*, a being of imagination. That is to say, it is not empirically given but on the contrary imagined, and as such, it is the condition for any intuition of an object in space. The representation of space as one, and as infinite, is a representation of the imagination. And indeed, what else could it be? Is it not clear that it cannot be a perception? Nevertheless, it is the condition for any situation and configuration of objects in space, and once represented as a system of relations of the latter, it is the form of phenomena. Only thus does space (as does time) acquire empirical reality.

I will be quicker with the two further points I announced at the beginning: space as *ens imaginarium*, and space as *quantum infinitum*. For there the nature of our disagreement is for the most part clarified, I think, by the two points I just discussed.

Space as *ens imaginarium*

In the extraordinary “table of nothing” which closes the Transcendental Analytic, Kant defines “empty intuition, without an object,” as an *ens imaginarium* (A₂₉₂/B₃₄₈), for which he gives as an example, space. Michel Fichant suggests that this representation of space as *imaginarium*, obtained when abstracting from any object given in it, should not be associated with the exercise of imagination that Kant calls *synthesis speciosa*:

It would be a mistake to interpret this description of space as an imaginary being as if it made the pure intuition of space a product of an act of transcendental imagination determining sensibility. As an *originary* and

given representation, this representation cannot be the product of spontaneity: in the characterization of space without an object as *ens imaginarium*, the role of the imagination has to do with “without an object” and not with space itself; in other words, what is an effect of the imagination is the thought-experiment which expels things from space and so discovers space itself as the ineliminable condition of all exercise of the imagination.¹⁸

According to Fichant, in maintaining on the contrary that the *ens imaginarium* mentioned at A292/B348 is the product of a synthesis of the imagination, I am led to maintain also that the original *quanta* that are space and time are subjected to the categories of quantity. This is not what I take myself to be doing. But before considering this point (see below), I would like to point out that Fichant himself cites, in a note to his translation of Kant’s text on Kästner, a text from *On a Discovery* in which the meaning given to the idea of *ens imaginarium* seems closer to my interpretation than to his. There the *ens imaginarium* appears to be, not the result of a process of abstraction – which, strictly speaking, would fall more under the authority of discursive understanding – but rather, an anticipation by imagination of the one space and the one time within which all compositions and all *Dichtungen* (fictions) are generated:

Space and time are mere thought-entities [*Gedankendinge*] and beings of imagination, not as if they were fictitiously manufactured [*gedichtet*] by imagination, *but because imagination must ground on them* [my emphasis] all its compositions and all its fictions.¹⁹

To say that space and time are “beings of imagination” is not to say that they are fictions (*Dichtungen*) of imagination. It is to say, however, that the imagination forms no imaginary representation without forming a representation of space and time. But it is also to say that the imagination generates no construction in pure intuition (“composition”, *Zusammensetzung*) without laying as their ground (*zum Grunde legen*) the intuition of space and time, represented as one space and one time. This intuition is in itself a mere “being of imagination,” one that has, however, empirical reality as the form of appearances.

Fichant might oppose to the interpretation I offer for the role of the imagination in the representation of space and time (projecting space and time as one whole rather than abstracting the representation of

¹⁸ Fichant, “L’Espace,” p. 30, main text and n. 21.

¹⁹ AAVIII, pp. 202–3, quoted by Fichant, “L’Espace,” p. 19.

spaces and times from the representations of empirical objects) a passage shortly preceding the one just cited, in which Kant speaks of “the *abstract* space of geometry,” which he opposes to “the *concrete* space” of appearances and describes as a “being of imagination [*ein Wesen der Einbildung*].”²⁰ But I do not deny that a process of abstraction allows one to isolate pure space and pure time. On the other hand, when Kant says that what is thus isolated is a “being of imagination,” in my view he can only mean that it is the imagination which makes space and time present to us: although it does not produce them by a process of *Dichten* or *Zusammensetzen* (as it does for imaginary representations and geometrical figures), it grounds on them all its *Dichtungen* and *Zusammensetzungen*. It is also worth noting that if one considers the sentence in full, one finds in it a duality similar to that found in the note to §26 of the Transcendental Deduction. For the sentence quoted continues as follows: “for they [space and time] are the essential form of our sensibility and of the receptivity of intuitions, by which objects are generally given to us [...].”²¹ In my view, space and time as “beings of imagination,” on which the imagination “must ground all its compositions and fictions,” are the formal intuitions of the note to §26 in the Transcendental Deduction. Space and time as “the essential form of our sensibility and of the receptivity of the intuitions” are the “first formal ground of sensibility” from *On a Discovery* and the “form of intuition” from the footnote to §26. The two are of course inseparable: that the forms of our sensibility or receptivity are space and time is what leads the imagination to “ground on them [as formal intuitions] all its compositions and fictions.”

One of the arguments Fichant opposes to my thesis that space and time, as pure intuitions (= formal intuitions), must be understood as the product of *synthesis speciosa*, is that “while it is easily understood that all figures are produced in space, one wonders what could possibly be the ‘figure’ of space itself.”²² I explain this point in *KCJ*: the main reason I retain the expression *synthesis speciosa* rather than figurative synthesis (*figürliche Synthesis* in German) is that using the original Latin expression emphasizes the semantic relation between this synthesis and the *formae seu sensibilibus species*, “forms or figures of things sensible,” that are, according to the Inaugural Dissertation, space and time. In my view,

²⁰ AA VIII, p. 202.

²¹ *Ibid.*, p. 203.

²² Fichant, “L’Espace,” p. 36.

we must relate the *synthesis speciosa* primarily to these *species*, and only secondarily to the construction of particular figures in space. It is also these *species* that Kant calls “pure images of all magnitudes” just before laying out the schemata of quantity (A142/B182). I am happy to grant that this notion of “pure image” is itself enigmatic. But the enigma lies with Kant. I did not invent it. And for my part I think that it has a solution if one admits that the projection by the imagination of space as one and time as one is the necessary condition for the representation of all figures and durations, as well as the necessary condition of all quantitative syntheses in space and in time.

This brings me to my fourth and last point: space as a *quantum infinitum*.

Quantum and quantitas

According to Michel Fichant, in maintaining that space and time are products of the *synthesis speciosa* of imagination, I am committed to maintaining also that space and time, as original *quanta* (magnitudes) are represented under the categories of *quantitas*, quantity. According to him, this amounts to “subordinating the *Aesthetic* to the *Logic*.”²³ Now the distinction between *quantum* and *quantitas* is one that I discuss at length, and I insist there on the fact that the representation of space and time, as *quanta*, precedes and conditions the generation of schemata and the application of categories of quantity.²⁴ About Kant’s distinction between *quantum* and *quantitas*, and the two notions of infinity (the actual infinity of metaphysical space, presupposed by geometry, where the whole precedes the parts rather than being the product of a synthesis of parts; and the potential infinity, or indefiniteness, of any successively synthesized series of units), I believe we are in complete agreement. But I think – and here we certainly disagree – that according to Kant, representing space (or time) as *quantum infinitum datum*, infinite *given* magnitude, is already the effect of “the affection of inner sense by the understanding,” although this affection precedes all concepts, indeed precedes all schematization guided by the logical-discursive functions that lead to concept formation.

²³ *Ibid.*, p. 29, n. 21.

²⁴ On the distinction between *quantum* and *quantitas*, see *KCJ*, pp. 263–71. A *quantum* is an entity that is represented as one entity, and represented in such a way that quantitative determinations can be applied to it. The quantitative determination of a *quantum* is its *quantitas*. For a further discussion of these issues, see ch. 2 in this volume, pp. 43–52.

What, in the end, is our disagreement about? It is about the extent to which, according to Kant, our intuitions and concepts respectively depend on the passive and the active aspects of our representational capacities. Kant's thesis, as I understand it, is that a merely passive subject would not have available to her the spatiotemporal unity ("represented as an infinite *given* magnitude") in which to organize her intuitions. I think this thesis is the foundation of the solution Kant proposes to the problem of the transcendental deduction of the categories: although the unity of space and time in which appearances are given is not a unity determined by the categories, the *synthesis speciosa* or "effect of the understanding on sensibility" which generates this unity is also what generates the particular syntheses by virtue of which appearances become susceptible to being reflected under concepts in accordance with the logical forms of judgment, and consequently reflected under categories. In the end, our disagreement cannot be resolved through a consideration of the Transcendental Aesthetic alone. It calls for a consideration of the argument in the course of which, and for the benefit of which the distinction under discussion comes into play: the argument of the Transcendental Deduction of the Categories.

I do not want to conclude this discussion without noting the many points of agreement between Michel Fichant and myself. Here are just a few of those points, listed in the order in which they appear in Fichant's article: the novelty of the Kantian theory of modalities and its relation to Kant's view of the forms of intuition (Fichant, p. 9; Longuenesse, pp. 187–8); the novelty of the Kantian treatment of the category of reality and its relation to the critique of the idea of a whole of reality – *totum realitatis* – in the Transcendental Ideal, in the *Critique of Pure Reason* (Fichant, p. 15; Longuenesse, pp. 341–53); the relation between "matter" and "form" of sensibility and the concepts of matter and form as they are analyzed in the appendix to the Transcendental Analytic, On the Amphiboly of Concepts of Reflection (Fichant, p. 23; Longuenesse, pp. 197–200); the primacy of form over matter of sensibility (*ibid.*); the distinction between *quantitas* and *quantum*, and the twofold meaning of the German term *Größe*, translated in French by *grandeur* (and in English by magnitude) (Fichant, p. 26; Longuenesse, pp. 298–307); the fact that space, as the "pure image of all magnitudes," is a *quantum* and not a *quantitas*, and that as a *quantum* it precedes the application of any category of *quantitas* (Fichant, p. 34; Longuenesse, pp. 301–4); the importance, to clarify this point, of Kant's text on Kästner's articles, a point only briefly mentioned in my book (p. 303) and on which Fichant's essay

brings unprecedented light.²⁵ I have learnt a great deal from Fichant's meticulous analysis of Kant's interpretation/appropriation of Kästner's articles. I do not believe I have resolved our disagreement, but I hope to have helped identify and clarify its grounds.

²⁵ Page references to Longuenesse are in *KPJ*. Corresponding pages in *KCJ* are respectively: pp. 148–9 (modality), pp. 298–310 (reality), pp. 156–7 (matter and form in the Amphiboly), pp. 263–71 (*quantitas* and *quantum*), pp. 266–8 (space as a *quantum*), p. 268 (reference to Kant on Kästner).

PART II

THE HUMAN STANDPOINT IN THE
TRANSCENDENTAL ANALYTIC

KANT ON A PRIORI CONCEPTS: THE METAPHYSICAL DEDUCTION OF THE CATEGORIES

In chapter 1 of the Transcendental Analytic, in the *Critique of Pure Reason*, Kant establishes a table of the categories, or pure concepts of the understanding, according to the “leading thread” of a table of the logical forms of judgment. He proclaims that this achievement takes after and improves upon Aristotle’s own endeavor in offering a list of categories, which Aristotle took to define the most general kinds of being. Kant claims that his table is superior to Aristotle’s list in that it is grounded on a systematic principle.¹ This principle is also what will eventually ground, in the Transcendental Deduction, the a priori justification of the objective validity of the categories: a justification of the claim that all objects (as long as they are objects of a possible experience) do fall under those categories.

Kant’s self-proclaimed achievement is the second main step in his effort to answer the question: “how are synthetic a priori judgments possible”? The first step was the argument offered in the Transcendental Aesthetic, to the effect that space and time are a priori forms of intuition. As such, Kant argued, they make possible judgments (propositions) whose claim to truth is justified a priori by the universal features of our intuitions. Such

¹ What allows Kant to make a claim to the completeness and systematic unity of the table of categories is the demonstration that the latter have their origin in the understanding as a “capacity to judge.” This point will be expounded and analyzed in the third section of this chapter.

propositions are thus both synthetic and a priori. They are synthetic in that their truth does not rest on the mere analysis of the subject-concept of the proposition. They are a priori in that their justification does not depend on experience but on a priori features of our intuitions that make possible any and all experience. However, space and time, as forms of intuition, do not suffice on their own to account for the content of any judgment at all, much less for our forming or entertaining such judgments. Kant's second step in answering the question, "how are synthetic a priori judgments possible?" consists in showing that conceptual contents for judgments about objects of experience are provided only if categories guide the ordering of our representations of those objects so that we can form concepts of them and combine those concepts in judgments.

The two aspects of Kant's view (we have a priori forms of intuition, we have a priori concepts whose table can be systematically established according to one and the same principle) gradually took shape during three decades of Kant's painstaking reflections on issues of natural philosophy and ontology. His questions about natural philosophy include for instance the following: how can we reconcile the idea that the reality of the world must be reducible to some ultimate components, and the idea that space is infinitely divisible? Are there any real interactions between physical things, and if so, what is the nature of those interactions? Such questions call upon the resources of an ontology, where Kant struggles with questions such as: what is the nature of space and time? How does the reality of space and time relate to the reality of things? Do we have any warrant for asserting the universal validity of the causal principle? Is the causal principle just a variation on the principle of sufficient reason and if so, what is the warrant for the latter principle?

Kant's argument for his table of the categories (what he calls, in the second edition of the *Critique of Pure Reason*, the "metaphysical deduction of the categories" [B159]) is one element in his answer to these questions, as far as the contribution of pure concepts of the understanding is concerned. Further elements will be the transcendental deduction of the categories, in which Kant argues that the categories whose table he has set up do have objective validity; and the system of principles of pure understanding, where Kant shows, for each and every one of the categories, how it conditions any representation of an object of experience and is thus legitimately predicated of such objects. From these proofs it follows, as Kant maintains in the concluding chapter of the *Analytic of Principles*, that "the proud name of an ontology, which presumes to offer synthetic *a priori* cognitions of things in general in a systematic

doctrine ... must give way to the more modest one of a mere analytic of the pure understanding" (A247/B303). In other words, where the ontology of Aristotelian inspiration defended by Kant's immediate predecessors in German school-philosophy purported to expound, by a priori arguments, universal features of things as they are in themselves, Kant's more modest goal is to argue that our understanding is so constituted that it could not come up with any objective representation of things as they present themselves in experience, unless it made use of the concepts expounded in his table of the categories.

It would be futile to try to summarize even briefly the stages through which Kant's view progressed before reaching its mature formulation in the *Critique of Pure Reason*. Nevertheless, it will be useful for a proper understanding of the reversal Kant imposes on the ambitions of traditional ontology to recall a few of the early formulations of the problems he tries to address in the metaphysical deduction of the categories.

Historical background

In the 1755 *New Elucidation of the First Principles of Metaphysical Cognition*, Kant offered a "proof" of the principle of sufficient reason (or rather, as he defined it, of the principle of determining reason) understood inseparably as a logical and an ontological principle, as were also the principle of identity and the principle of contradiction.² From this general "proof" he then derived a proof of the principle of determining reason of every contingent existence (i.e. of every existing thing that might as well have existed as not existed). He also derived a proof of the "principle of succession" (there is a sufficient reason for any change of state of a substance) and a "principle of coexistence" (the relations between finite substances do not result from their mere coexistence, but must have been instituted by a special act of God).³ Although these proofs differed from those provided by Christian Wolff and his followers, they nevertheless had the same general inspiration. They rested on a similar assumption that logical principles (defining the relations between concepts or propositions) are also ontological principles

² See *Principiorum primorum cognitionis metaphysicae nova dilucidatio*, AA1, pp. 388–94, ed. and trans. David Walford and Ralf Meerbote, *A New Elucidation of the First Principles of Metaphysical Cognition*, in *Theoretical Philosophy, 1755–1770* (Cambridge: Cambridge University Press, 1992). On Kant's pre-critical defense of the principle of sufficient reason, see ch. 5 of this book.

³ AA1, pp. 396–8, 410–16.

(defining the relations between existing things and states of affairs), and that one can derive the latter from the former.

In his lectures on metaphysics from the early 1760s, as well as in the published works of the same period, Kant expresses doubts on precisely this point. In the 1763 *Attempt to Introduce the Concept of Negative Magnitudes into Philosophy*, he distinguishes between logical relations and real relations. And he formulates the question that he will later describe, in the preface to the *Prolegomena*, as “Hume’s problem”: how are we to understand a relation where “if something is posited, something else also is posited”?⁴ It is important to note that the question is formulated in the vocabulary of the school logic in which Kant was trained. The relation between something’s “being posited” and something else’s “being posited” is just the logical relation of *modus ponens*, according to which if the antecedent of a hypothetical judgment is posited, then the consequent should also be posited. In his *Lectures on Metaphysics* of the 1760s, Kant notes that the logical *ratio ponens* or *tollens* is analytic, but the real *ratio ponens* or *tollens* is synthetic: empirical. By this he means that in an empirical hypothetical judgment, the relation between the antecedent and consequent of the judgment is synthetic: the consequent is not conceptually contained in the antecedent. Kant’s question follows: what, in such a case, grounds the connection between antecedent and consequent and thus the possibility of concluding from the antecedent’s being posited that the consequent should also be posited.⁵

⁴ See *Prolegomena*, AAiv, p. 257. Cf. *Attempt to Introduce the Concept of Negative Magnitudes in Philosophy*, AAII, pp. 202–4, in *Theoretical Philosophy, 1755–1770*.

⁵ See *Metaphysics Herder*, AAxxviii–1, p. 12; *Negative Magnitudes*, AAi, pp. 202–3. Note that Kant’s hypothetical judgment thus differs from our material conditional: for the *modus ponens* Kant mentions here has to be grounded on a connection, which Kant, like his contemporaries, calls *consequentia* (in Latin) or *Konsequenz* (in German) between antecedent and consequent (on this point see also the fifth section of this chapter). Kant’s question is: in cases where the consequent in the hypothetical judgment is not conceptually contained in the antecedent, and so the relation between antecedent and consequent is synthetic, what is the nature of the connection? To my knowledge, the passage from *Metaphysics Herder* characterizing causal connection in terms of a synthetic *ratio ponens* is the first mention we find of the distinction between analytic and synthetic judgments which will become so prominent in the critical period. It is interesting that it should occur in the context of what will become, in Kant’s terms, “Hume’s problem,” and thus in considering a kind of judgment which is not of the form “S is P” but “If S is P, then Q is R” (a hypothetical judgment). Contrary to a widely held view and *pace* the characterization given in the Introduction to the *Critique of Pure Reason* (A6–10/B10–14), Kant does not restrict the distinction between analytic and synthetic judgments to categorical judgments. On the relation between Kant’s hypothetical judgment and Kant’s understanding of the concept of cause, see ch. 6, pp. 151–6; and ch. 7, pp. 188–90.

During the same period of the 1760s, Kant also becomes interested in the difference between the method of metaphysics and the method of mathematics. Metaphysics, he says, proceeds by analysis of confused and obscure concepts. Mathematics, in contrast, proceeds by synthesis of clear, simple concepts. In the same breath, Kant expresses skepticism with respect to the Leibnizian project of solving metaphysical problems by way of a universal combinatoric. This would be possible, Kant says, if we were in a position to completely analyze our metaphysical concepts. But they are far too complex and obscure for that to be possible.⁶

Note that the notions of analysis and synthesis by way of which Kant contrasts the respective methods of metaphysics and mathematics are not the same as the notions of analytic and synthetic connections at work in the reflections on *ratio ponens* and *tollens* mentioned earlier. The latter describe a relation of concepts in a (hypothetical) proposition. The former characterize a method. Nevertheless, the two uses of the notions are of course related. Just as mathematics proceeds by synthesis in that it proceeds by combining concepts that were not contained in one another, similarly a synthetic *ratio ponens* is a relation between antecedent and consequent that does not rest on the fact that the concepts combined in the latter are contained in the concepts combined in the former (as, for instance, in “if God wills, then the world exists” or “if the wind blows from the West, then rain clouds appear”).⁷ Just as metaphysics proceeds by analysis in that it proceeds by clarifying what is contained, or thought, in an initially obscure concept, similarly an analytic *ratio ponens* is a relation between antecedent and consequent that rests on the fact that the concepts combined in the latter are contained in the concepts combined in the former. It is also worth noting that in both cases, analysis and synthesis, and respectively analytic and synthetic connection, are defined with respect to concepts. There is no mention of the distinction between two kinds of representations (intuitions and concepts) that will play such an important role in the critical period.

That distinction is introduced in the 1770 Inaugural Dissertation, *On the Form and Principles of the Sensible and Intelligible World*.⁸ There Kant maintains that all representations of spatiotemporal properties and relations of empirical objects depend on an original intuition of space, and

⁶ *Inquiry Concerning the Distinctness of the Principles of Natural Theology and Morality, Being an Answer to the Question Proposed for Consideration by the Berlin Royal Academy of Sciences for the year 1763*, AAII, pp. 276–91, especially p. 283; trans. in *Theoretical Philosophy, 1755–1770*.

⁷ Cf. *Negative Magnitudes*, AAII, pp. 202–3.

⁸ *On the Form and Principles of the Sensible and the Intelligible World*, AAII, pp. 385–419. trans. in *Theoretical Philosophy, 1755–1770* (henceforth: Inaugural Dissertation).

an intuition of time, in which particular objects can be presented and related to one another. These objects are themselves objects of particular intuitions. All intuitions differ from concepts in that they are singular: they are representations of individuals or, we might say in the case of particular intuitions, they are the representational counterparts of demonstratives. And they are immediate: they do not require the mediation of other representations to relate to individual objects. Concepts, in contrast, are general: they are representations of properties common to several objects. And they are mediate or reflected: they relate to individual objects only through the mediation of other representations, i.e. intuitions. In saying that space and time are intuitions, Kant is saying that they are representations of individual wholes (the representation of one space in which all particular spaces and spatial positions are included and related, and the representation of one time in which all particular durations and temporal positions are included and related) that are prior to, and a condition for, the acquisition of any concepts of spatial and temporal properties and relations. And this in turn allows him to distinguish two kinds of synthesis: the classically accepted synthesis of concepts; and the synthesis of intuitive representations of things, and parts of things, individually represented in space and in time.⁹

The Dissertation thus has the resources for solving many of the problems that occupied Kant over the preceding twenty years. In particular, because space and time are characterized not only as intuitions, but as intuitions proper to our own sensibility or ability to receive representations from the way we are affected by things, their property of infinite divisibility makes it the case that things as they appear to us can be represented as susceptible to division *ad infinitum*. But from this, one need not conclude that there are no ultimate components of the world as a world of purely intelligible things, things independent of their representation in our sensibility.¹⁰

⁹ In the Inaugural Dissertation, the distinguishing feature of intuitions, in contrast with concepts, is their singularity: see Inaugural Dissertation, AA11, pp. 399, 402. Immediacy is not explicitly mentioned. Moreover, the contrast between intuitions and concepts is not firmly fixed: Kant also calls intuitions “singular concepts” (*ibid.*, p. 397). In the *Critique of Pure Reason*, Kant emphasizes not only the singularity, but also the immediacy of intuitions: see A19/B33. For a discussion of these two features of intuition in the critical period, see Charles Parsons, “The Transcendental Aesthetic,” in Paul Guyer (ed.), *The Cambridge Companion to Kant* (Cambridge: Cambridge University Press, 1992), p. 64. On the two kinds of synthesis in the Inaugural Dissertation, see AA11, pp. 387–8.

¹⁰ Inaugural Dissertation, AA11, pp. 415–16.

Moreover, Kant asserts that in addition to space and time as forms of our sensibility, i.e. original intuitions in which things given to our senses are related to one another, we also have concepts “born from laws innate to the mind” that apply universally to objects. Among such concepts, he cites those of cause, substance, necessity, possibility, existence.¹¹ It is our use of such concepts that allows us to think the kinds of connections that befuddled Kant in the 1760s. For instance, in applying the concept of cause to objects, whether given to our senses or merely thought, we come up with the kind of synthetic *modus ponens* Kant wondered about in the essay on *Negative Quantities* and the related lectures on metaphysics.

However, in a well-known letter to Marcus Herz of February 1772, Kant puts this last point into question: how can concepts that have their origin in our minds be applied to objects that are given? This difficulty concerns both our knowledge of the sensible world and our knowledge of the intelligible world. For in both cases, things on the one hand, and our concepts of them on the other hand, are supposed to be radically independent of one another. Having thus radically divided them, how can we hope to put them back together? In that same letter, Kant announces that he has found a solution to this quandary, and that it will take him no more than three months to lay it out.¹² In fact, it took him almost a decade. The result of that effort is the *Critique of Pure Reason*, its metaphysical deduction of the categories and the two related components in Kant’s solution to the problem laid out in the letter to Herz: the transcendental deduction of the categories, and the proofs of the principles of pure understanding (see *Critique of Pure Reason*, A50/B74–A234/B287).

Of these three components, the first – the metaphysical deduction of the categories, i.e. the establishment of their table according to a systematic principle – has always been the least popular with Kant’s readers. In the final section of this chapter, I shall consider some of the objections that have been raised against it, from the time the *Critique* first appeared to more recent times. Whatever the fate of those objections, it is important to keep in mind that the key terms and themes at work in the metaphysical deduction – the relation between logic and ontology, the distinction between analysis and synthesis, between synthesis of concepts and synthesis of intuitions – are all part of Kant’s effort to

¹¹ *Ibid.*, p. 395.

¹² Letter to Herz of February 21, 1772, AAxi, p. 132; ed. and trans. Arnulf Zweig, *Philosophical Correspondence 1759–1799* (Chicago: Chicago University Press, 1967), p. 73.

find the correct formulation for questions that have preoccupied him since the earliest years of his philosophical development.

Kant's view of logic

The metaphysical deduction of the categories is expounded in chapter 1 of the Transcendental Analytic in the *Critique of Pure Reason*, entitled “On the Clue to the Discovery of All Pure Concepts of the Understanding” (A66/B92).¹³ This chapter is preceded by a fairly long introduction to the Transcendental Analytic as a whole, where Kant explains what he means by “logic.” This is worth noticing. For as we saw, one main issue in his pre-critical investigations was that of the relation between logic and ontology, and the capacity of logic to capture fundamental features of the world. But now Kant puts forward a completely new distinction, that between “general pure logic” (which he also sometimes calls “formal logic”, e.g. A131/B170) and “transcendental logic” (A50/B74–A57/B81). In putting forward this distinction, Kant intends both to debunk Leibnizian-Wolffian direct mapping of forms of thought upon forms of being, *and* to redefine, on new grounds, the grip our intellect can have on the structural features of the world. As we shall see, establishing a new relation between logic and ontology is also what guides his “metaphysical deduction of the categories,” namely his suggestion that a complete and systematic table of a priori concepts of the understanding, whose applicability to objects given in experience is impervious to empirical verification or falsification, can be established according to the “leading thread” of logical forms of judgment.

Kant's primary tool for his twofold enterprise, first prying apart logic and ontology, but then finding new grounds for the grip our intellect has on the world, is the distinction between two kinds of access that we have to reality: our being affected by it or being “receptive” to it, and our thinking it or forming concepts of it. Each of these two kinds of access, he says, depends on a specific capacity: our acquiring representations by way of being affected depends on “receptivity” or sensibility, our acquiring concepts depends on “spontaneity” or understanding. Kant

¹³ Here as elsewhere I am following the translation by Paul Guyer and Allen Wood. “Clue” is their choice for translating Kant's *Leitfaden*. It is certainly correct, but I prefer “leading thread” which captures better what Kant is doing: following the lead of logical forms of judgment to establish his table of the categories. In citations I will follow Guyer and Wood, but in the main text I will adopt “leading thread.” The reader should be aware that both words translate the German *Leitfaden*.

differentiates these capacities primarily by way of the contrast just mentioned, between receiving (through sensibility) and thinking (through understanding). But they are also distinguished by the kinds of representations they offer, and by the ways in which they order and relate to one another these representations. Sensibility offers intuitions (singular and immediate representations), understanding offers concepts (general and reflected representations). As beings endowed with sensibility or receptivity, we relate our intuitions to one another in one and the same intuition of space and of time. As beings endowed with understanding, we relate concepts to one another in judgments and inferences. These modes of ordering representations are what Kant calls the “forms” of each capacity: space and time are forms of sensibility, the logical forms of judgment are forms of the understanding (cf. A19–21/B33–5; A50–2/B74–6).

These initial distinctions have important consequences for Kant’s characterization of logic. Logic, he says, is “the science of the rules of the understanding in general,” to be distinguished from aesthetic as “the science of the rules of sensibility” (A52/B76). Characterizing logic in this way is surprising for a contemporary reader. We are used to characterizing logic in a more objective way, as a science of the relations of implication that hold between propositions. Learning logic is of course learning to make use of these patterns of implication in the right way for deriving true proposition from true proposition, or for detecting the flaw in a given argument. But that is not what the proper object of logic is, or what logic is about.¹⁴ Now, Kant’s more psychological characterization of logic is one he shares with all early modern logicians, influenced by Antoine Arnauld and Pierre Nicole’s *Logic or the Art of Thinking*, also known as the Port-Royal *Logic*. However, as the very title of Arnauld’s and Nicole’s book shows, even their logic is not just preoccupied with the way we happen to think, but establishes norms for thinking *well*.¹⁵ But Kant is more explicit

¹⁴ On this point, see Gilbert Harman, “Internal critique: a logic is not a theory of reasoning and a theory of reasoning is not a logic,” in *Studies in Logic and Practical Reasoning*, 1 (2002). On the contrast between Kantian and Fregean logic with respect to this point (i.e. does logic have anything to do with the way we think or even ought to think?), see John MacFarlane, “Frege, Kant, and the logic in logicism,” *Philosophical Review*, no. 111 (2002), pp. 32–3.

¹⁵ Antoine Arnauld and Pierre Nicole, *La Logique ou l’art de penser*, ed. P. Clair and F. Girbal (Paris: Librairie philosophique Vrin, 1981); trans. Jill Vance Buroker, *Logic or the Art of Thinking* (Cambridge: Cambridge University Press, 1996). The full title contains, after the subtitle (“or the Art of Thinking”) the further precision: “containing, in addition to the common rules, several new observations proper to form judgment” (*propres à former le jugement*).

than they are about the normative character of logic: logic, he says, does not concern the way we think but the way we ought to think. It “derives nothing from psychology” (A54/B78).¹⁶ More precisely, logic so considered is what Kant calls “pure” logic, which he distinguishes from “applied” logic where one takes into account “the empirical conditions under which our understanding is exercised, e.g. the influence of imagination, the laws of memory, the power of habit, inclination, and so on” (A53/B77). Logic properly speaking or “pure” logic has no need to take these psychological factors into account. Rather, its job is to consider the patterns of combination of concepts in judgments that are possible by virtue of the mere form of concepts, i.e. their universality; and the patterns of inference that are possible by virtue of the mere forms of judgments.

The idea of taking into account the “mere form” of concepts, judgments, and inferences rests in turn on another distinction, that between logic of the “general use” and logic of the “particular use” of the understanding. A logic of the particular use of the understanding is a science of the rules the understanding must follow in drawing inferences in connection with a particular content of knowledge – each science, in this way, has its particular “logic.”¹⁷ But logic of the general use of the understanding is a logic of the rules presupposed in all use of the understanding, whatever its particular domain of investigation.

Kant has thus identified “general pure” logic: a logic that, as “pure,” does not derive anything from psychology; and as “general,” defines the most elementary rules of thought, rules that any use of the understanding must follow. Now, that he also defines this logic as formal is where his radical parting of ways with his Leibnizian-Wolffian rationalist predecessors is most apparent. For the latter – just as for the early Kant of the 1760s – the most general principles of logic also defined the most general structural features of being. But as we saw, ever since he distinguished relations of concepts and relations of existence (in his metaphysical essays of the early 1760s), Kant has not taken the identity of logical and real connections for granted. This being so, forms of thought are just this: forms of thought. And the question arises: just what is

¹⁶ Cf. also *Logik*, AA1x, p. 14; ed. and trans. J. Michael Young, *The Jäsche Logic*, in *Lectures on Logic* (Cambridge: Cambridge University Press, 1992).

¹⁷ Kant was quite aware, for instance, that mathematical proof has rules of its own: see A716–18/B744–6. Similarly, the mathematical science of nature has to combine the constructive methods of mathematics, the inductive methods of empirical inquiry, and the deductive methods of syllogistic inference.

their relation to forms of being, or to the way things are? Logic, as “general and pure,” is thus only formal.¹⁸

On the other hand, the distinction between forms of sensibility and forms of understanding helps delineate the domain for a logic that is just as pure as formal logic, because it does not derive its rules from empirical-psychological considerations of the kind described above, but that is not as general as formal logic, in that the rules it considers are specified by the content of thought they are relevant for. They are the rules for combining representations given in sensibility, whatever the empirical (sensory) content of these representations may be. Those rules are thus not merely formal (concerning only the forms of thought in combining concepts and judgment for arriving at valid inferences) but they concern the way a content for thought is formed by ordering manifolds in intuition (multiplicities of qualitatively determined spatial and temporal parts). These rules are the rules of “transcendental” logic.

I now turn to Kant’s argument for his table of the logical forms of judgment, in section one of the chapter on the “Leading Thread for the Discovery of all Pure Concepts of the Understanding” (A67–9/B92–4), and to the table itself, expounded in section two (A70–6/B95–101)

The Leading Thread: Kant’s view of judgment, and the table of logical forms of judgment

In the Inaugural Dissertation, Kant distinguished what he called the “logical use” and the “real use” of the understanding. In the real use, he said, concepts of things and of relations are given “by the very nature of the understanding.”¹⁹ In the logical use, “the concepts, no matter whence they are given, are merely subordinated to each other, the lower, namely, to the higher concepts (common characteristic marks) and compared with one another in accordance with the principle of

¹⁸ Michael Wolff notes that Kant is not the first to make use of the expression “formal logic.” He cites Joachim Jungius’ *Logica Hamburgensis* (Hamburg, 1638) as an earlier source for this expression. See Michael Wolff, *Die Vollständigkeit der Kantischen Urteilstafel. Mit einem Essay über Freges “Begriffsschrift”* (Frankfurt-am-Main: Vittorio Klostermann, 1995), p. 203n. He is right. Nevertheless, Kant’s emphasis on the idea that “general pure logic” is merely formal, as opposed to the various “logics of the special use of the understanding” (including transcendental logic) which are specified by the particular content of thought they take into consideration, seems to be proper to him and certainly does not play anywhere else the groundbreaking role it plays in Kant’s critical philosophy. On this point, see again John MacFarlane, “Frege, Kant, and the logic in logicism,” pp. 44–57.

¹⁹ Inaugural Dissertation, section 2, §5, AAII, p. 393.

contradiction.”²⁰ The real use is what we saw Kant put into question in the letter to Herz of February 1772: how could concepts that have their origin in the laws of our understanding be applicable to objects independent of our understanding?²¹ But the logical use remained unscathed, and it is precisely what Kant describes again in section one of the *Leitfaden* chapter under the title: “On the logical use of the understanding in general” (A67/B92). By “logical use of the understanding,” it is thus clear we should not understand the use of understanding in logic – whatever that might mean. Rather, it is the use we make of the understanding according to the rules of logic when we subsume sensible intuitions under concepts and subordinate lower concepts to higher concepts, in accordance with the principle of contradiction, thus forming judgments and inferences. As we shall see, Kant argues that considering precisely this “logical use of the understanding” gives him the clue or leading thread (*Leitfaden*) he needs for a solution to the problem he raised about its “real use.” For the very acts of judging by way of which we subsume intuitions under concepts and subordinate lower concepts to higher concepts also provide rules for ordering manifolds in intuition and thus eventually for subsuming objects of sensible intuition under the categories. Or so Kant will argue in section three of the *Leitfaden* chapter.

But before we reach that point, we need to consider the “logical use” in more detail, to see how Kant thinks he can derive from it his table of the logical forms of judgment.

The key term, in Kant’s exposition of the “logical use of the understanding,” is the term function:

All intuitions, as sensible, rest on affections, concepts therefore on functions [*Begriffe also auf Funktionen*]. By a function, however, I understand the unity of the action of ordering different representations under a common one. (A68/B93)

The term “function” belongs to the vocabulary of biology and the description of organisms. Kant talks of the “function” of mental capacities as he would talk of the “function” of an organ. In this very general sense, sensibility too has a “function.” Indeed, in the introduction to the *Transcendental Logic* Kant writes:

²⁰ *Ibid.*

²¹ AAX, p. 125.

The two capacities or abilities [*Beide Vermögen oder Fähigkeiten*] cannot exchange their functions. The understanding is not capable of intuiting anything, and the senses are not capable of thinking anything. (A51/B76)

However, in the present context, Kant employs “function” in a more restricted sense. Concepts, he says, rest on functions, as opposed to intuitions which, as sensible, rest on affections. More precisely: because intuitions rest on affections or depend on receptivity, concepts have to rest on functions, namely they depend on our unifying representations (intuitions) that are given in a dispersed, random order, in sensibility. In this context, function is (as quoted above) the “unity of the action of ordering different representations under a common representation.” Another ancestor for the notion of function in this context, besides the biological one, is then the notion of a mathematical function. The “function” we are talking about here would map given representations – intuitions – on to combinations of concepts in specific judgments.²²

The “action” mentioned in the citation given above should not be understood as a temporally determined psychological event.²³ What Kant is describing are universal modes of ordering our representations, whatever the empirically determined processes by way of which those orderings occur. They consist in subsuming individuals under concepts, and subordinating lower (less general) concepts under higher (more general) concepts. These subsumptions and subordinations are themselves structured in determinate ways, and each specific way in which they are structured constitutes a specification of the “function” defined above. Interestingly, introducing the term “function” in section one of

²² For a fascinating historical survey of the term “function,” its twofold meaning (biological and mathematical) for Leibniz, for Kant’s immediate predecessors, and finally for Kant himself, see Peter Schulthess, *Relation und Funktion. Eine systematische und entwicklungsgeschichtliche Untersuchung zur theoretischen Philosophie Kants* (Berlin: De Gruyter, 1981), pp. 217–47.

²³ Michael Wolff maintains that according to Kant, the functions are not temporal, but the actions (*Handlungen*) are (see *Vollständigkeit*, p. 22). I do not think that is correct. To say that the actions by way of which representations are unified are temporal would be to say that they are events in time. But surely this is not what Kant means. When he talks of actions of the understanding what he means to point out is that the unity of representations is not given with them but depends on the thinking subject’s spontaneity. What particular events and states of affairs in time might be the empirical manifestations of that spontaneity are not questions he is concerned with. I would add that the actions in question are no more noumenal than they are phenomenal: the concept “action” here does not describe a property or relation of things, but only the status we can grant to the unity of our representations: the latter is not “given” but “made” or it is the contribution of the representing subject to the structuring of the contents of her representations.

the *Leitfaden* chapter to describe the logical employment of the understanding is already making space for what will be the core argument of the metaphysical deduction of the categories:

The same function, that gives unity to different representations in a judgment, also gives unity to the mere synthesis of different representations in an intuition, which, expressed universally, is called the pure concept of the understanding. (A79/B104–5)

I will return to this point in a moment

The “function” in question is from the outset characterized as a function of judging. This is because we can make no other use of concepts than subsuming individuals under them, or subordinating lower concepts under higher concepts, namely forming (thinking) judgments. This being so, the “unity of the action” or function by way of which we acquire concepts results in judgments that have a determinate form (a determinate way of combining the concepts they unite).

There is thus an exact correspondence between the functions (“unity of the action of ordering different representations”) the understanding exercises in judging, and the forms of the judgments that result from the functions. Unlike the functions, the forms are manifest in the linguistic expression of the judgments.²⁴

In section one of the “Leading Thread,” Kant makes use of two examples of actual judgments to further elucidate the function of judging. The first is “All bodies are divisible.” He insists that in this example, the concept of “divisible” is related to the concept of “body” (or the latter is subordinated to the former) and by way of this relation, the concept “divisible” is related to all objects thought under the concept “body” (or all objects thought under the concept “body” are subsumed under the concept “divisible”). A similar point is made again later in the paragraph,

²⁴ Both Michael Wolff and Reinhart Brandt have drawn attention to the fact that for Kant, there is no thought without language (see Wolff, *Vollständigkeit*, pp. 23–4; Brandt, *Urteilstafel*, pp. 42, 110. In the *Jäsche Logic*, Kant opposes the distinction that is usual in logic textbooks of his time, between judgments and propositions, according to which judgments are mere thoughts whereas propositions are thoughts expressed in language. Such a distinction is wrong, he says, for without words “one simply could not judge at all” (AAix, p. 109). Instead he distinguishes judgment and proposition as problematic versus assertoric judgment (*ibid.*). But in fact, with a few exceptions Kant uses the term “judgment” to refer to all three kinds of modally qualified judgments (problematic, assertoric, apodeictic). Note also that in his usage, “judgment” refers on the one hand to the act of judging, on the other hand to the content of the act (what we would call the proposition). This is consistent with the fact that the function of judging finds expression in a form of judgment (inseparably belonging to thought and language).

when Kant explains that the concept “body” means something, for instance “metal,” which thus can be known by way of the concept “body.” In other words, in saying “Metal is a body” I express some knowledge about what it is to be a metal, and thus also a knowledge about everything that falls under the concept “metal.” The two examples jointly show that whatever position a concept occupies in a judgment (the position of subject or the position of predicate, in a judgment of the general form “S is P”), in its use in judging a concept is always, ultimately, a predicate of individual objects falling under the subject-concept of the judgment. This in turn makes every judgment the major premise of an implicit syllogistic inference whose conclusion asserts the subsumption, under the predicate-concept, of some object falling under the subject-concept (e.g. the judgment “all bodies are divisible” is the implicit premise of a syllogistic inference such as: “all bodies are divisible; this X is a body; so, this X is divisible.” Or again: “All bodies are divisible; metal is a body; so, metal is divisible; now, this is metal; so, this is a body; so, this is divisible.” And so on). If it is true to say that we make use of concepts only in judgments, it is equally true to say that the function of syllogistic inference is already present in any judgment by virtue of its form. For asserting a predicate of a subject is also asserting it of every object falling under the subject-concept.

This is why, as Kant maintains in what is undoubtedly the decisive thesis of this section, and perhaps of the whole *Leitfaden* chapter:

We can, however, trace all acts of the understanding back to judgments, so that the understanding in general can be represented as a capacity to judge [*ein Vermögen zu urteilen*]. (A69/B94)

By “understanding” he means here the intellectual capacity as a whole, what he has described as spontaneity as opposed to the receptivity or passivity of sensibility. In agreement with a quite standard presentation of the structure of intellect in early modern logic textbooks, Kant divides the understanding into the capacity to form concepts (or understanding in the narrow sense), the capacity to subsume objects under concepts and subordinate lower concepts to higher concepts (the power of judgment, *Urteilkraft*) and the capacity to form inferences (reason, *Vernunft*). He is now telling us that all of these come down to one capacity, the capacity to judge. The latter is not the same as the power of judgment (*Urteilkraft*). One way to present the relation between the two would be to say that the *Urteilkraft* is an actualization of the *Vermögen zu urteilen*. But for that matter, so are the two other components of understanding.

So the *Vermögen zu urteilen* is that structured, spontaneous, self-regulating capacity characteristic of human minds, that makes them capable of making use of concepts in judgments, of deriving judgments from other judgments in syllogistic inferences, and of systematically unifying all of these judgments and inferences in one system of thought.²⁵

This explains why Kant concludes section one with this sentence: “The functions of the understanding can therefore all be found if we can completely present the functions of unity in judgments” (A69/B94). If the understanding as a whole is nothing but a *Vermögen zu urteilen*, then identifying the totality of functions (“unities of the act”) of the understanding amounts to nothing more and nothing less than identifying the totality of functions present in judging, which in turn are manifest by way of linguistically explicit forms of judgments. Kant adds: “That this can easily be accomplished will be shown in the next section.” The “next section” is the section that expounds (as its title indicates) “the logical function of understanding in judgments,” by laying out a table of logical forms of judgments.

But of course, even if we grant Kant that he has justified his statement that “the understanding as a whole is a capacity to judge,” this by itself does not suffice to justify the table he presents. How is the table itself justified?

Kant’s explanation of the function of judging decisively illuminates the table he then goes on to set up. First, if the canonical form of judgment is a subordination of concepts (as in the two examples analyzed above) then this subordination can be such that either all or part of the extension of the subject-concept is included in the extension of the predicate-concept: this gives us the quantity of judgments, specified as universal or particular. Moreover, the extension of the subject can be included in or excluded from the extension of the predicate-concept. This gives us the title of quality, specified as affirmative or negative judgment. The combination of these two titles and their specifications provides the classical Aristotelian “square of opposites”: universal affirmative, universal negative, particular affirmative, particular negative judgments.

Within each of these first two titles, however, Kant adds a third specification, which does not belong in the Aristotelian square of

²⁵ Above I have translated *Vermögen zu urteilen* as capacity to judge. Guyer and Wood have translated it as faculty of judging. On this difference, see ch. 1, n. 3, p. 18. See also *KCJ*, pp. 7–8. On judgments and inferences, see *ibid.*, pp. 90–3.

opposites: singular judgment under the title of quantity, “infinite” judgment under the title of quality. In both cases he explains that these additions would not belong in a “general pure logic” strictly speaking. For as far as the forms of judgment relevant to forms of syllogistic inference are concerned, a singular judgment can be treated as a universal judgment, where the totality of the extension of the subject-concept is included in the extension of the predicate-concept. Similarly, an infinite judgment (in Kant’s sense: a judgment in which the predicate is prefixed by a negation) is from the logical point of view an affirmative judgment (there is no negation appended to the copula). But those two forms do belong in a table geared toward laying out the ways in which our understanding comes up with knowledge of objects. In this context there is all the difference in the world between a judgment by way of which we assert knowledge of just one thing (singular judgment) and a judgment by way of which we assert knowledge of a complete set of things (universal judgment). Similarly, there is all the difference in the world between including the extension of a subject-concept in that of a determinate predicate-concept, and locating the extension of a subject-concept in the indeterminate sphere which is outside the limited sphere of a given predicate (see A72–3/B97–8, where Kant distinguishes the infinite judgments from both the affirmative and the negative judgments). Now it is significant that Kant should thus add, for the benefit of his transcendental inquiry, the two forms of singular and “infinite” judgment to the forms making up the classical square of opposites. It shows that if the logical forms serve as a “leading thread” for the table of categories, conversely the goal of coming up with a table of categories determines the shape of the table of logical forms.

This is even more apparent, I suggest, if we consider the third title, that of relation. It should first be noted that this title does not exist in any of the lists of judgments presented in the logic textbooks Kant was familiar with.²⁶ On the other hand, the three kinds of relation in judgments (relation between a predicate and a subject in a categorical

²⁶ Early modern logicians typically distinguish between simple and composite propositions, and their list of composite propositions includes many more besides Kant’s hypothetical and disjunctive judgments. More importantly, the distinction between “simple” and “composite” propositions puts Kant’s categorical judgment on one side, and Kant’s hypothetical and disjunctive judgments on the other side of the divide. Only Kant includes categorical, hypothetical, disjunctive judgments under one and the same title, that of relation. For more details about early modern lists of propositions see *KCJ*, p. 98, n. 44. Note that Kant mostly uses the term “judgment” to refer to the content of the act of judging (an act which is also called “judgment”) but he sometimes insists that when

judgment, relation between a consequent and an antecedent in a hypothetical judgment, relation between the mutually exclusive specifications of a concept and that concept in a disjunctive judgment) determine the three main kinds of inferences, from a categorical, a hypothetical, or a disjunctive major premise. This is in keeping with what emerged as the most important thesis of section one: the understanding as a whole was characterized as a *Vermögen zu urteilen* because in the function of judging as such were contained the other two functions of the understanding: acquiring and using concepts, and forming inferences. This being so, it is natural to include in a table of logical forms of judgment meant to expound the features of the function of judging the three forms of relation that govern the three main forms of syllogistic inference.

Still, as many commentators have noted, it is somewhat surprising to see Kant include as equally representative of forms of judgment that govern forms of inference, the categorical form that is the almost exclusive concern of Aristotelian syllogistic, and the hypothetical and disjunctive forms that find prominence only with the Stoics. Does this not contradict Kant's (admittedly shocking) statement that logic "has been unable to make a single step forward" since Aristotle (Bviii)?

I think there are two answers to this question. The first is historical: the forms of hypothetical and disjunctive inference (*modus ponens* and *tollens*, *modus ponendo tollens* and *tollendo ponens*) are actually briefly mentioned by Aristotle, developed by his followers (especially Galen and Alexander of Aphrodisias), and present in the Aristotelian tradition as Kant knows it.²⁷ The second answer is systematic: it takes us back to the remark I made earlier. Kant's table is not just a table of logical forms. It is a table of logical forms motivated by the initial analysis of the function of judging and by the goal of laying out which aspects of the "unity of the act" (the function) are relevant to our eventually coming up with knowledge of objects. In this regard it is certainly striking that Kant should have developed the view that in the "mediate knowledge of an object" that is judgment, we not only predicate a concept of another concept and thus of all objects falling under the latter (categorical judgment), but we also predicate a concept of another concept and thus of all objects falling under the latter, under the added condition that some other predication be satisfied (hypothetical judgment); and we think both categorical and

the judgment is assertoric, it should be called a proposition. See *Logic*, §§30–3, AAix, pp. 109, 604–5.

²⁷ See Wolff, *Vollständigkeit*, p. 232.

hypothetical predications in the context of a unified and, as much as possible, specified conceptual space (expressed in a disjunctive judgment). These added conditions for predication (and thus for knowing objects under concepts) find their full import when related to the corresponding categories, as we shall see in a moment.

The fourth title in the table is that of modality. Kant explains that this title “contributes nothing to the content of the judgment (for besides quantity, quality and relation there is nothing more that constitutes the content of a judgment), but rather concerns only the value of the copula in relation to thinking in general” (A74/B100). The formulation is somewhat surprising, since after all none of the other titles was supposed to have anything to do with content either: they were supposed merely to characterize the form of judgments, or the ways in which concepts were combined in judgments, whatever the contents of these concepts. But what Kant probably means here is that modality does not characterize anything further even with respect to that form. Once the form of a judgment is completely specified as to its quantity, quality, relation, the judgment can still be specified as to its modality. But this specification concerns not the judgment individually, but rather its relation to other judgments, within the systematic unity of “thinking in general.” Thus a judgment is problematic if it belongs, as antecedent or consequent, in a hypothetical judgment; or if it expresses one of the divisions of a concept in a disjunctive judgment. It is assertoric if it functions as the minor premise in a hypothetical or disjunctive inference. It is apodeictic (but only conditionally so) as the conclusion of a hypothetical or disjunctive inference. Such a characterization of modality is strikingly anti-Leibnizian, since for Leibniz the modality of a judgment would have entirely depended on the content of the judgment itself: whether its predicate is asserted of its subject by virtue of a finite or an infinite analysis of the latter. Note, therefore, that Kant’s characterization of modality from the standpoint of “general pure” logic confirms that the latter is concerned only with the form of thought, not with the particular content of any judgment or inference.

So the table, in the end, is fairly simple: it is a table of forms of concept subordination (quantity and quality) where, to the classical distinctions (universal and particular, affirmative and negative), is added under each title a form that allows special consideration of individual objects (singular judgment) and their relation to a conceptual space that is indefinitely determinable (infinite judgment). And it is a table where judgments are taken to be possible premises for inferences (relation)

and are taken to derive their modality from their relation to other judgments or their place in inferences (modality).

Kant's claim that the table is systematic and complete is not supported by any explicit argument. Efforts have been made by recent commentators to extract such an argument from the first section of the *Leitfaden* chapter, the most systematic effort being Michael Wolff's. Even he, however, recognizes that the full justification of Kant's table of logical forms comes only with the transcendental deduction.²⁸ Indeed, in its details the table can have emerged only from Kant's painstaking reflections about the relation between the forms according to which we relate concepts to other concepts, and thus to objects (forms of judgment), and the forms according to which we combine manifolds in intuition so that they fall under these concepts. It is a striking fact that the first mature version of Kant's table of logical forms appeared not in his reflections on logic, but in his reflections on metaphysics. This seems to indicate that the search for a systematic list of the categories and a justification of their relation to objects determined the establishment of the table of logical forms of judgment just as much as the latter served as a leading thread for the former.²⁹

I now turn to the culminating point of this whole argument: Kant's argument for the relation between logical forms of judgment and categories, and his table of the categories.

Kant's argument for the table of the categories

I said earlier that the fundamental thesis of section one of the *Leitfaden* chapter is "Understanding as a whole is a capacity to judge." I might now add that the fundamental thesis of section three ("On the pure concepts of the understanding or categories") is that judgments presuppose synthesis.

²⁸ *Ibid.*, pp. 45–195, esp. p. 181.

²⁹ The *Logik Blomberg* (1771) and the *Logik Philippi* (1772) give a presentation of judgments that remains closer to Meier's textbook, which Kant used for his lectures on logic, than to the systematic presentation of the first *Critique*. See AAxxiv–1, pp. 273–9 and 461–5; *Logic Blomberg*, in *Lectures on Logic*, pp. 220–5. For an occurrence of the two tables in Lectures on Metaphysics of the late 1770s, see *Metaphysik LI*, AAxxviii–1, p. 187. But see also *Reflexion* 3063 (1776–8), in *Reflexionen zur Logik*, AAxvi, pp. 636–8. For a more complete account of the origins of Kant's table, see Tonelli, "Die Voraussetzungen zur Kantischen Urteilstafel in der Logik des 18. Jahrhunderts," in Friedrich Kaulbach and Joachim Ritter (eds.), *Kritik und Metaphysik. Heinz Heimsoeth zum achtzigsten Geburtstag* (Berlin: De Gruyter, 1966). Also Schulthess, *Relation und Funktion*, pp. 11–12; Longuenesse, *KCJ*, p. 77, n. 8; p. 98, n. 44.

In a way, this statement is a truism. After all, “synthesis” means nothing more than “positing together” or “combination,” and it is obvious that any judgment of the traditional Aristotelian form “S is P” is a positing together or combination of concepts. Indeed Aristotle defined it in just this way, and the Aristotelian tradition followed suit all the way down to Kant, including Port-Royal’s logic of ideas.³⁰ What is new, however, in Kant’s notion of synthesis, is that it does not mean only or even primarily a combination of concepts. As far as concepts of objects given in sensibility are concerned, the combining (synthesis) of those concepts in judgments can occur only under the condition that a combining of parts and aspects of the objects given in sensibility and potentially thought under concepts also occurs. The rules for these combinings is what transcendental logic is concerned with.

But why should there be syntheses of parts and aspects of objects presented to our sensibility? Why should it not be the case that empirically given objects just do present themselves as spatiotemporal, qualitatively determined wholes that have their own presented boundaries? Kant does not really justify the point in section three of the *Leitfaden* chapter. The furthest he goes in that direction is to explain that in order for analysis of sensible intuitions into concepts to be possible, synthesis of these same intuitions (or of the “manifold [of intuition], whether it be given empirically or a priori” [A77/B102]) must have occurred. The former operation, as we saw from section one of the *Leitfaden* chapter, obeys the rules of the logical employment of the understanding. The latter operation must present the sensible manifold in such a way that it can be analyzed into concepts susceptible to being bound together in judgments according to the rules of the logical employment of the understanding.

³⁰ See Aristotle, *De interpretatione*, 16a11; Arnauld and Nicole, *Art of Thinking*, part II, ch. 3. As we saw in the previous section, Kant nevertheless gives new meaning to the idea of judgment as a combination of concepts, since in his view the activity of judging determines the formation of concepts, so that the unity of judgment is strictly speaking prior to what it unites, namely concepts. Note also that in the main text I write that “synthesis” means positing together as well as combination. In saying this I would like to emphasize the fact that as with all of Kant’s terms pertaining to representation, one should give “synthesis” the sense of the act of synthesizing as much as that of the result of the act. Similarly, “combination” means combining as much as the result thereof. Depending on the context, it is sometimes helpful to use the term expressly connoting the action of the mind rather than the term connoting the result or intentional correlate of the action. In any event, both dimensions are always present for Kant.

Here it will be useful to recall the problem laid out in the letter to Herz mentioned in the first section of this chapter. Mathematical concepts present their own objects by directing the synthesis of an a priori (spatial) manifold according to rules provided by the relevant concept (e.g. a line, a triangle, a circle). But we cannot do that in metaphysics, because there the objects of our concepts are not just constructed in pure intuition. They are supposed to be independently existing things, so that in this case we just do not see how a priori concepts might relate to objects.³¹ Well, here (in section three of the *Leitfaden*) Kant is telling us that a function of the understanding, the function of judging, is not arbitrarily producing (constructing) representations of objects, as in geometry or even in arithmetic, but at least unifying according to rules the presented manifold of intuition, so that it can be analyzed into (empirical) concepts and thought about in judgments.

Thus he writes:

Synthesis in general, as we shall subsequently see, is the mere effect of imagination, a blind though indispensable function of the soul, without which we would have no cognition at all, but of which we are seldom even conscious. Yet *to bring this synthesis to concepts is a function that pertains to the understanding* [my emphasis] and by means of which it first provides us with cognition in the proper sense. (A78/B103)

What might it mean, to “bring synthesis to concepts”? I suggest the following. What is given to us in sensibility is given in a dispersed way – spread out in space and in time, where similar things do not present themselves to us at the same time but rather, need to be recalled in order to be compared. Moreover, the variety and variability of what does present itself is such that which pattern of regularity should be picked out might be anybody’s guess. Even the way we synthesize or bind together the manifold might itself be quite random, obeying here some rule of habitual association, there some emotional connection, and so on. So ordering the synthesis itself under systematic rules so that the components of intuition can be thought under common concepts in a regular fashion is the work of the understanding. The understanding thus “brings synthesis to concepts.” It makes it the case that synthesis does give rise to, opens the way for, conceptualization.

³¹ See above, p. 87. Cf. *Correspondence*, AAx, p. 131.

The analogy with the mathematical case is only partly helpful here. Kant writes:

Now pure synthesis, universally represented, yields the pure concept of the understanding. By this synthesis, however, I understand that which rests on a ground of synthetic unity *a priori*: thus our counting (as is especially noticeable in the case of larger numbers) is a synthesis in accordance with concepts, since it takes place in accordance with a common ground of unity (e.g. the decimal). Under this concept, therefore, the synthesis of the manifold becomes necessary. (A78/B104)

In counting, we add unit to unit, and then units of higher order (a decade, a hundred, a thousand, and so on) that allow us to synthesize (enumerate) larger and larger collections (of items, of portions of a line . . .). The idea is that similarly, in ordering empirical manifolds, we make use of grounds of unity of these manifolds (say: whenever event of type A occurs, then event of type B also occurs), which we think under concepts or “represent universally” (in the case at hand, under the concept of cause). We thus form chains of connections between these manifolds, in an effort to unify them in one space and one time, in the context of one and the same totality of experience. But of course, whereas it is always possible to enumerate a collection of things or parts of things once one has arbitrarily given oneself a unit for counting or measuring, in contrast, actually finding repeated occurrences of similar events depends on what experience presents to us. Because of this difference, Kant distinguishes the former kind of synthesis, which he calls “mathematical” synthesis, from the latter, which he calls “dynamical,” and he accordingly distinguishes the corresponding categories by dividing them along the same line (see B110; A178–9/B221–2). Nevertheless, in the latter case just as in the former, a “ground of unity” that has its source in the understanding is at work in our synthesizing (combining, relating) the objects of our experience or their spatio-temporal parts. This ground of unity, says Kant, is a pure concept of the understanding.

This reasoning leads to the core statement of all three sections of the *Leitfaden* chapter:

The same function that gives unity to the different representations *in a judgment* also gives unity to the mere synthesis of different representations *in an intuition*, which, expressed universally, is called the pure concept of understanding. The same understanding, therefore, and

indeed by means of the very same actions through which it brings the logical form of a judgment into concepts by means of the analytical unity, also brings a transcendental content into its representations by means of the synthetic unity of the manifold in intuition in general, on account of which they are called pure concepts of the understanding that pertain *a priori* to objects; this can never be accomplished by general logic. (A79/B104-5)

I indicated above how the introduction of the term function at the beginning of section one already foreshadowed the argument of section three: the very same “unity of the act” that accounts for the unity of concepts of judgments also accounts for there being just those forms of unity in our intuitions that make them liable to being reflected under concepts in judgment. The concepts that reflect those forms of unity in intuition are the categories. But they do not just reflect those forms of intuitive unity. As the mathematical analogue made clear (cf. A78/B104 cited above), they originally guide them. So for instance, as we just saw, the concept of magnitude is that concept that guides the operation of finding (homogeneous) units (say, points, or apples) or as the case may be, units of measurement (say, a meter) and adding them to one another in enumerating a collection or in measuring a line. The end result of this operation is the determination of a magnitude, whether discrete (the number of a collection) or continuous (the measurement of a line) as when we say that the number of pears on the table is seven or the measurement of the line is 4 meters. Here we reflect the successive synthesis of homogeneous units under the concept of a determinate magnitude (7 units, 4 meters). Similarly, the concept of cause (the concept of some event’s being such as to be adequately or “in itself” reflected under the antecedent of a hypothetical judgment with respect to another event, adequately or “in itself” reflected under the consequent) guides the search for some event that might always precede another in the temporal order of experience. Once such a constant correlation is found, we say that event of type A is the cause of event of type B. In other words, the sequence is now reflected under the concept of a determinate causal connection.³²

³² In the chapter on the Schematism of the Pure Concepts of the Understanding, Kant maintains that the schema of the concept of cause is “the real upon which, when it is posited, something else always follows” (A144/B183). This means that it is by apprehending the regular repetition of a sequence of events or states of affairs (“the real upon which,

The two aspects in our use of categories are explicitly mentioned in §10. Kant says, on the one hand, that categories “give unity to [the] pure synthesis” (A79/B104). He says, on the other hand, that the pure concepts of the understanding are “the pure synthesis *generally represented*” (A78/B104; see also A79/B105 quoted earlier, where both aspects are present in one and the same sentence: “the same function . . . gives unity which expressed generally, is the pure concept of the understanding”). These two points are fully explained only in book two of the *Transcendental Analytic*, “The Analytic of Principles.” There Kant explains that categories, insofar as they determine rules for synthesis of sensible intuitions, have schemata (ch. 1 of book two, A137/B176). Being able to pick out instances of such schemata allows us to subsume our intuitions under the categories (ch. 2 of book two, A148/B187–A235/B287). Only in those chapters does Kant give a detailed account of the way in which each category both determines and reflects a specific rule (a schema) for the synthesis of intuitions.

As far as the metaphysical deduction is concerned, Kant is content with making the general case that:

In such a way there arise [*entspringen*] exactly as many pure concepts of the understanding which apply to objects of intuition *a priori*, as there were logical functions of all possible judgments in the previous table: for the understanding is completely exhausted, and its capacity entirely measured by these functions. (A80/B106)

Kant does not mean that every time we make use of a particular logical function/form of judgment, we thereby make use of the corresponding category. True, absent a sensible manifold to synthesize, all that remains of the categories are logical functions of judgment. But the logical functions of judgment are not, on their own as it were, categories. They become categories (categories “arise,” *entspringen*, as Kant says in the text

whenever posited, something else follows”) that we recognize in experience the presence of a causal connection. But conversely, we look for such constant conjunctions because we do have a concept of cause as the concept of something that might be thought under the antecedent of a hypothetical judgment, with respect to something else that might be thought under the consequent. Of course Kant’s point is also that we can always be mistaken about what we so identify. Some repeated sequence is warranted as a true causal connection only if it can be thought under a causal law, and this involves the application of mathematical constructions that allow us to anticipate the continuous succession and correlation of events in space and in time. However, here I am anticipating developments of Kant’s argument that go way beyond the metaphysical deduction properly speaking. See my “Kant on causality: what was he trying to prove?” in Christia Mercer and Eileen O’Neill (eds.), *Early Modern Philosophy: Mind, Matter and Metaphysics* (Oxford: Oxford University Press, 2005); reprinted as ch. 6 in this volume.

just cited) only when the understanding's capacity to judge is applied to sensible manifolds, thus synthesizing them (combining them in intuition) for analysis (into concepts) for synthesis (of concepts in judgments). And even then, there remains a difference between the category's guiding the synthesis of manifolds, and the manifolds' being correctly subsumed under the relevant category. For instance, it may be the case that the understanding's effort to identify what might fall under the antecedent and what might fall under the consequent of a hypothetical judgment, leads it to recognize the fact that whenever the sun shines on the stone, the stone gets warm. This by itself does not warrant the claim that there is an objective connection (a causal connection) between the light of the sun and the warmth of the stone. Only some representation of the overall unity of connections of events in the world can give us at least a provisional, revisable warrant that this connection is the right one to draw.³³

Kant is not yet explaining how his metaphysical deduction of the categories might put us on the way to resolving the problem left open after the 1770 Inaugural Dissertation: how do concepts that have their source in the understanding apply to objects that are given? All we have here is an exposition as a system "from a common principle, namely the capacity to judge" (A80–1/B106) of the table of the categories, and an explanation of the role they perform in synthesizing manifolds so that the latter can be reflected under concepts combined in judgments. To respond to the problem he set himself, Kant will need to argue that those combining activities are necessary conditions for any object at all to become an object of cognition for us. And as I suggested earlier, only the later argument will provide a full justification of the table of logical forms itself: it is a table making manifest just those functions of judging that are necessary for any empirical concept at all to be formed by us, and thus for any empirical object to be recognized under a concept. This confirms again that the "leading thread" from logical forms to categories is precisely no more (but no less) than a "leading thread." Its actual relevance will be proved only when the argument of the Transcendental Deduction is expounded and in turn, opens the way to the Schematism and System of Principles.

³³ On this example, see *Prolegomena*, AAiv, pp. 312–13. See also the related discussion above, ch. 2, pp. 58–62.

The impact of Kant's metaphysical deduction of the categories

The history of Kant's metaphysical deduction of the categories is not a happy one. Kant's idea that a table of logical functions of judgments might serve as a leading thread for a table of the categories was very early on an object of suspicion, on three main grounds. First, Kant's careless statement that he "found in the labors of the logicians," namely in the logic textbooks of the time, everything he needed to establish his table of the logical forms of judgment raises the obvious objection that the latter is itself lacking in systematic justification.³⁴ This in turn casts doubt on Kant's claim that unlike Aristotle's "rhapsodic" list (A81–2/B106–7), his table of the categories is systematically justified. Second, even if one does endorse Kant's table of the logical forms of judgment, this does not necessarily make it an adequate warrant for his table of the categories. And finally, once the Aristotelian model of subject–predicate logic was challenged by post-Fregean truth-functional, extensional logic, it seemed that the whole Kantian enterprise of establishing a table of categories according to the leading thread of forms pertaining to the old logic seemed definitively doomed.

An early and vigorous expression of the first charge mentioned above was Hegel's. In the *Science of Logic*, Hegel writes:

Kantian philosophy . . . borrows the categories, as so-called root notions for transcendental logic, from subjective logic in which they were adopted empirically. Since it admits this fact, it is hard to see why transcendental logic chooses to borrow from such a science instead of directly resorting to experience.³⁵

Note, however, that it is not Kant's table of logical forms *per se* that Hegel objects to. Rather, it is the way the table is justified (or rather, not justified) and the random, empirical way in which the categories themselves are therefore listed. Nevertheless, in the first section of his Subjective Logic, Hegel too expounds four titles and for each title, three divisions of judgment that exactly map the titles and divisions of

³⁴ Cf. *Prolegomena*, AAiv, pp. 323–4.

³⁵ G. W. F. Hegel, *Wissenschaft der Logik*, II: *Die subjective Logik*, in *Gesammelte Werke*, Deutsche Forschungsgemeinschaft, ed. Rhein-Westfäl. Akad. d. Wiss. (Hamburg: F. Meiner, 1968–), vol. XI, pp. 253–4; *Science of Logic*, trans. A. V. Miller (Atlantic Highlands, NJ: Humanities Press International, 1989), p. 613. What Hegel means here by "subjective logic" is what Kant called "pure general logic," namely the logic of concepts, judgments, and syllogistic inferences. But unlike Kant's "pure general logic," Hegel's subjective logic is definitely not "merely formal." More on this shortly.

Kant's table, although Hegel starts with the title of quality rather than quantity. Moreover, the names of each title are changed, although the names of the divisions remain the same. Kant's title of "quality" becomes "judgment of determinate-being" (*Urteil des Daseins*), with the three divisions of positive, negative, and infinite judgment. "Quantity" becomes "judgment of reflection" with the three titles of singular, particular, and universal. "Relation" becomes "judgment of necessity" (*sic!*) with the three titles of categorical, hypothetical, and disjunctive. And finally "modality" becomes "judgment of the concept" with the three divisions of assertoric, problematic, and apodeictic.³⁶ Of course, the change in nomenclature signals fundamental differences between Hegel's and Kant's understanding of the four titles and their twelve divisions. The most important of those differences is that for Hegel the four titles and three divisions within each title do not list mere forms of judgment, but forms with a content, where content and form are mutually determining. So for instance, the content of "judgments of determinate-being" (affirmative, negative, infinite) is the immediate, sensory qualities of things as they present themselves in experience. The content of "judgments of reflection" (singular, particular, universal) is what Hegel calls "determinations of reflection," namely general representations, or representations of common properties as they emerge for an understanding that compares, reflects, abstracts. The content of "judgments of necessity" (categorical, hypothetical, disjunctive) is the relation between essential and accidental determinations of things. And finally the content of "judgments of the concept" (assertoric, problematic, apodeictic) is the normative evaluation of the adequacy of a thing to what it ought to be, or its concept. So certainly Hegel's interpretation of each title radically transforms its Kantian ancestor. Nevertheless, the fact that despite his criticism of Kant's empirical derivation, Hegel maintains the structure of Kant's divisions, indicates that his intention is not to criticize the classifications themselves, but rather to denounce the cavalier way in which Kant asks us to accept them as well as Kant's shallow separation between form and content of judgment.³⁷

Nor is Hegel's intention to challenge the relation between categories and functions of judgment. In the *Science of Logic*, categories of quantity and quality are expounded in part one (Being) of book one (The

³⁶ See *Die subjective Logik*, pp. 59–90; trans. pp. 623–63.

³⁷ On this point see my "Hegel, Lecteur de Kant sur le jugement," in *Philosophie*, no. 36 (1992), pp. 62–7.

Objective Logic); those of relation and modality are expounded in part two (The Doctrine of Essence) of book one. Logical forms of judgment and syllogistic inference are expounded in section one of book two (The Subjective Logic or the Doctrine of the Concept). If we accept, as I suggest we should, that book two expounds the activities of thinking that have governed the revelation of the categorical features expounded in parts one and two of book one, then Hegel's view of the relation between categories and forms of judgment is similar to Kant's at least in one respect: there is a fundamental relation (in need of clarification) between the structural features of the acts of judging and the structural features of objects. The difference between Hegel's view and Kant's view is that Hegel takes this relation to be a fact about being itself, and the structures thus revealed to be those of being itself, whereas Kant takes the relation between judging and structures of being to be a fact about the way human beings relate to being, and the structures thus revealed to be those of being as it appears to human beings.

Hegel's grandiose reinterpretation of Kant's titles of judgments did not have any immediate posterity, and his speculative philosophy was soon superseded by the rise of naturalism in nineteenth-century philosophy.³⁸ When Hermann Cohen, reacting against both the excesses of German Idealism and the rampant naturalism of his time, undertook to revive the Kantian transcendental project, he declared that his goal was to "ground anew the Kantian theory of the a priori" ("die Kantische Aprioritätslehre erneut zu begründen").³⁹ By this he meant that, against the vagaries of Kant's German Idealist successors, he intended to lay out what truly grounds Kant's theory of the categories and a priori principles. According to Cohen, Kant's purpose in the *Critique of Pure Reason* is to expound the presuppositions of the mathematical science of nature founded by Galileo and Newton. The leading thread for Kant's pure concepts of the understanding or categories (expounded in book one of the *Transcendental Analytic*) is really Kant's discovery of the principles of pure understanding (expounded in book two), and the leading thread for the latter are Newton's principles of motion in the *Principia Mathematica Philosophiae Naturalis*. Thus the true order of discovery of the *Transcendental Analytic* leads from the Principles of Pure Understanding (book two), to the Categories (book one). This does not

³⁸ On this point, see Hans D. Sluga, *Gottlob Frege* (London: Routledge and Kegan Paul, 1980), pp. 8–35.

³⁹ Cohen, *Kants Theorie der Erfahrung*, p. ix.

make the logical forms of judgment irrelevant, in Cohen's eyes. For the latter formulate the most universal patterns or models of thought derived from the unity of consciousness, which for Cohen is nothing other than the epistemic unity of all principles of experience, where experience means scientific knowledge of nature expounded in Newtonian science. So it is quite legitimate to assert that the categories depend on these universal patterns. But the systematic unity of the categories and of the logical forms can be discovered only by paying attention to the unity of the principles of the possibility of experience, i.e. of the Newtonian science of nature.⁴⁰

Cohen follows up on his interpretative program by showing how Kant's systematic correlation between logical forms of judgment and categories can be understood in the light of the distinction he offers in the *Prolegomena* between judgments of perception and judgments of experience. Cohen then proceeds to explain and justify Kant's selection of logical forms by relating each of them to the corresponding category and to its role in the constitution of experience. In other words, he implements the very reversal in the order of exposition that he argues is faithful to Kant's true method of discovery: moving from the a priori principles that may ground judgments of experience, to the categories present in the formulation of these principles, to the logical forms of judgment.⁴¹

Cohen's achievement is impressive. But it is all too easy to object that his reducing Kant's unity of consciousness to the unity of the principles of scientific knowledge, and his reducing Kant's project to uncovering the a priori principles of Newtonian science, amount to a very biased reading of Kant's *Critique of Pure Reason*. In fairness to Cohen, his interpretation of Kant's critical philosophy did not stop there. In *Kants Begründung der Ethik*,⁴² he considered Kant's view of reason and its role in morality. And this in turn led him to give greater consideration, in the second and third editions of *Kants Theorie der Erfahrung*, to Kant's theory of the ideas of pure reason and to the bridge between knowledge and morality.⁴³ Nevertheless, as far as the metaphysical deduction of the categories is concerned, his interpretation remained essentially unchanged.

⁴⁰ Cohen, *Kants Theorie der Erfahrung*, p. 229.

⁴¹ *Ibid.*, pp. 245–8.

⁴² Hermann Cohen, *Kants Begründung der Ethik* (Berlin, 1877; 2nd edn 1910).

⁴³ See *Kants Theorie der Erfahrung*, preface to the second edition, p. xiv.

That interpretation found its most vigorous challenge in Heidegger's reading of Kant's first *Critique*. Heidegger urges that Kant did not intend his *Critique of Pure Reason* primarily to clarify the conceptual presuppositions of natural science. Rather, Kant's goal was to question the nature and possibility of metaphysics. According to Heidegger, this means laying out the ontological knowledge (knowledge of being as such) that is presupposed in all ontic knowledge (knowledge of particular entities). Kant's doctrine of the categories is precisely Kant's "refoundation" of metaphysics, or his effort to find for metaphysics the grounding that his predecessors had been unable to find. This refoundation consists, according to Heidegger, in elucidating the features of human existence in the context of which human beings' practical and cognitive access to being is made possible.

What does this have to do with Kant's enterprise in the metaphysical deduction of the categories? In the *Phenomenological Interpretation of the Critique of Pure Reason* (a lecture course delivered at Marburg in 1927–8, and first published in 1977) and in *Kant and the Problem of Metaphysics* (first edition, 1929), Heidegger develops the following view. Kant's groundbreaking insight was to discover that the unity of our intuitions of space and of time, and the unity of concepts in judgments, have one and the same "common root": the synthesis of imagination in which human beings develop a unified view of themselves and of other entities as essentially temporal entities. Now, categories, according to Heidegger, are the fundamental structural features of the unifying synthesis of imagination which results in the unity of time (and space) in intuition, on the one hand; and in the unity of discursive representations (concepts) in judgments, on the other hand. This being so, the fundamental nature of the categories is expounded not in the metaphysical deduction, which relates categories to logical forms of judgments, but rather in the Transcendental Deduction and even more in the chapter on the Schematism of the Pure Concepts of the Understanding. For it is in these two chapters that the role of the categories as structuring human imagination's synthesizing (unifying) of time is expounded and argued for. This does not mean that the Metaphysical Deduction is a useless or irrelevant chapter of the *Critique*. For if it is true that the unity of intuition and the unity of judgments have one and the same source in the synthesis of imagination according to the categories, then the logical forms of judgment do give a clue to a corresponding list of the categories. But this should not lead to the mistaken conclusion that the categories have their origin in logical forms of judgment. Rather, logical forms of judgment give us a clue to

those underlying forms or structures of unity because they are the surface effect, as it were, of forms of unity that are also present in sensibility (where they are manifest as the schemata of the categories) by virtue of one and the same common root in imagination.⁴⁴

Note that Heidegger agrees with Cohen at least in maintaining that logical forms of judgment can provide a leading thread to a table of categories just because forms of judgment and categories have one and the same ground, the unity of consciousness. Their difference consists in the fact that Cohen understands that unity as being the unity of thought expressed in the principles of natural science. Heidegger understands it as the unity of human existence projecting the structures of its own temporality.

The readings of Kant's metaphysical deduction we have considered so far offer challenges only to Kant's motivation and method in adopting a table of logical forms of judgment as the leading thread to his table of categories. What they do not challenge is the relevance of Kant's Aristotelian model of logic in developing the argument for his table of the categories. A more radical challenge comes of course from the idea that contrary to Kant's claim, logic did not emerge in its completed and perfected form from Aristotle's mind (cf. Bviii). Here we have to make a quick step back in time. For the initiator of modern logic, Gottlob Frege, wrote his *Begriffsschrift* (1879) several decades before Heidegger wrote *Being and Time* (1927). Unsurprisingly, by far the more threatening challenge to Kant's metaphysical deduction came from Frege's *Begriffsschrift* and its aftermath.

As we saw, Kant takes logic to be a "science of the rules of the understanding." But Frege takes logic to be the science of objective relations of implication between thoughts or what he calls "judgeable contents."⁴⁵

⁴⁴ See Martin Heidegger, *Phänomenologische Interpretation der Kritik der reinen Vernunft*, collected edn vol. xxv (Frankfurt-am-Main: Vittorio Klostermann, 1977), pp. 257–303; *Phenomenological Interpretation of the Critique of Pure Reason*, trans. Parvis Emad and Kenneth Maly (Bloomington and Indianapolis: Indiana University Press, 1995), pp. 175–207. And *Kant und das Problem der Metaphysik*, collected edn vol. III (Frankfurt-am-Main: Vittorio Klostermann, 1991), pp. 51–69; *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana University Press, 1990), pp. 34–46.

⁴⁵ Gottlob Frege, *Begriffsschrift. Eine der arithmetischen nachgebildete Formelsprache des reinen Denkens*, in *Begriffsschrift und andere Aufsätze* (Hildesheim: Olms, 1964). *Begriffsschrift, a formula language for pure thought, modeled upon that of arithmetic*, in *Frege and Gödel: Two Fundamental Texts in Mathematical Logic*, ed. Jean van Heijenoort (Cambridge, Mass.: Harvard University Press, 1970). Page references will be to the English edition. On the distinction between judgment and judgeable content, see *ibid.*, §2, p. 11:

Against the naturalism that tended to become prevalent in nineteenth-century views of logic, Frege defends a radical distinction between the subjective conditions of the act of thinking and its objective content. Logic, according to him, is concerned with the latter, psychology with the former. In spite of his declared intention not to mix general pure (= formal) logic with psychology, Kant, according to Frege, is confused in maintaining that logic deals with the rules *we* (human beings) follow in thinking, rather than with the laws that connect thoughts independently of the way any particular thinker or group of thinkers actually think.⁴⁶

According to Frege, Kant's subservience to the traditional, Aristotelian model of subject–predicate logic is grounded on that confusion. For the subject–predicate model really takes its clue from the grammatical structure of sentences in ordinary language. And ordinary language is itself governed by the subjective, psychological intentions and associations of the speaker addressing a listener. But again, what matters to logic are the structures of thought that are relevant to valid inference, nothing else. Those structures, for Frege, include the logical constants of propositional calculus (negation and the conditional), the analysis of propositions into function–argument rather than subject–predicate, and quantification.⁴⁷

In §4 of the *Begriffsschrift*, Frege examines “the meaning of distinctions made with respect to judgments.” The distinctions in question are clearly those of the Kantian table, which in Frege's time have become classic. Frege first notes that those distinctions apply to the “judgeable content” rather than to judgment itself.⁴⁸ This being said, he retains as relevant to logic the distinction between “universal” and “particular” judgeable

“A judgment will always be expressed by means of the sign \vdash —, which stands to the left of the sign, or the combination of signs, indicating the content of the judgment. If we omit the small vertical stroke at the left end of the horizontal one, the judgment will be transformed into a mere combination of ideas [*Vorstellungsverbindung*], of which the writer does not state whether he acknowledges it to be true or not.”

Later Frege renounces the expression *Vorstellungsverbindung* as too psychological, and talks instead of *Gedanke* to describe the judgeable content to the right of the judgment stroke. See the 1910 footnote Frege appended to §2, p. 11, n. 6.

⁴⁶ On the rise of nineteenth-century naturalism about logic, and Frege's conception of logic as a reaction against naturalism, see Sluga, *Frege*, especially ch. 1 and 2. In fairness to Kant, it should be recalled that he does distinguish logic from psychology: he maintains that contrary to the latter, the former is concerned not with the way we think, but with the way we ought to think. But this distinction can have little weight for Frege, who wants to free logic from any mentalistic connotation, whether normative or descriptive.

⁴⁷ Strawson's criticism of the redundancies of Kant's table is clearly inspired from Frege's. See Strawson, *Bounds of Sense*, pp. 78–82.

⁴⁸ It is worth noting that Frege reverses the Kantian terminology and calls “proposition” the judgeable content and “judgment” the asserted content, whereas Kant reserved the term

contents (Kant's first two titles of quantity), but leaves out "singular." He retains "negation" (Kant's second title of quality, negative judgment) and thus the contrasting affirmation (which does not need any specific notation), but leaves out infinite judgments. He declares that the distinction between categorical, hypothetical, and disjunctive judgments "seems to me to have only grammatical significance." Meanwhile he introduces his own notation for conditionality in the next section, §5 of the *Begriffsschrift* (more on this in a moment). Finally, he urges that the distinction between assertoric and apodeictic modalities (which alone, he says, characterize judgment rather than merely the judgeable content) depends only on whether the judgment can be derived from a universal judgment taken as a premise (which would make the judgment apodeictic), or not (which would leave it as a mere assertion, or assertoric judgment), so that this distinction "does not affect the conceptual content." Frege presumably means that the distinction between assertoric and apodeictic judgments does not call for a particular notation in the *Begriffsschrift*. As for a proposition "presented as possible," Frege takes it to be either a proposition whose negation follows from no known universal law, or a proposition whose negation asserted universally is false. Although this last characterization differs from Kant's characterization of problematic judgments (as components in hypothetical or disjunctive judgments), it remains that Frege's view of modality is similar to Kant's own view, indeed seems inspired by it. For as we saw Kant thinks that modality does not concern the content of any individual judgment, but only its relation to the unity of thought in general. However, Kant does not think that what we might call this "holistic" view of modality makes it irrelevant to logic. This point would be worth pursuing, but we cannot do it here.

In short, according to Frege one need retain from the Kantian table only the first two titles of quantity, the first two titles of quality, and the second title of modality (assertion expressed by the judgment stroke). To these he adds his own operator of conditionality, which one might think has a superficial similarity to Kant's hypothetical judgment. However, Frege makes it clear they are actually quite different. He recognizes explicitly, for instance, that his conditional is not the hypothetical judgment of ordinary language, which he identifies with Kant's hypothetical judgment. And he states that the hypothetical judgment of ordinary language (or Kant's hypothetical judgment) expresses causality.⁴⁹

"proposition" to assertoric judgment: see above, n. 18; *Begriffsschrift*, §2, §4. These are mere terminological differences, but they need to be kept in mind to avoid confusions.

⁴⁹ *Begriffsschrift*, §5, p. 15.

However, his view on this point does not seem to be completely fixed, at least in the *Begriffsschrift*, since elsewhere in this text he urges that the causal connection is expressed by a universally quantified conditional.⁵⁰ In any event, Kant would not accept any of those statements. For as we saw, he would say that although the hypothetical judgment does express a relation of *Konsequenz* between antecedent and consequent, this relation is not by itself sufficient to define a causal connection. As for the universal quantification of a conditional, it would even less be sufficient to express a causal connection, precisely because the conditional bears no notion of *Konsequenz*. So even Frege's (very brief) discussion of hypothetical judgment and causality bears very little relation to Kant's treatment of the issue.

This might just leave us with Frege's general complaint against Kant's table: the reason this table can have only very little to do with Frege's forms of propositions is that it is governed by models of ordinary language. Consequently, Frege's selective approach to Kant's table does not merely consist in getting rid of some forms and retaining others. Rather, it is a drastic redefinition of the forms that are retained (such as the conditional, generality, assertion as expressed by the judgment stroke). And this, Frege might urge, is necessary to definitively purify logic of the psychologistic undertone it still has in Kant. But then one needs to remember what the purpose of Kant's table is, as opposed to the purpose of Frege's choice of logical constants for his propositional calculus. Frege sets up his list so that he has the toolbox necessary and sufficient to expound patterns of logical inference, where the truth-value of conclusions is determined by the truth-value of premises, and the truth-value of premises is determined by the truth-value of their components (truth-functionality). Kant's logic, on the other hand, is a logic of combination of concepts as "general and reflected representations." And we might say that his setting up a table of elementary forms for that logic should help us understand how the very states of affairs by virtue of which Frege's propositions stand for True or False, are perceived and recognized as such. In fact, I suggest that Frege's truth-functional propositional logic captures relations of co-occurrence or non-co-occurrence of states of affairs that Kant would have no reason to reject, but that for him would take secondary place with respect to the relations of subordination of concepts that, when related to synthesized intuitions, allow us to

⁵⁰ *Ibid.*, §5, p. 14; §12, p. 27.

become aware of those states of affairs and their co-occurrence in the first place.

What about Frege's challenge to the subject–predicate model of judgment and his replacement of it by the function–argument model?⁵¹ Here one might think that the modern logic of relations (n-place functions) is anticipated by Kant's transcendental logic, which thus overcomes the limitations of his “general pure” or “formal” logic. For transcendental logic is concerned *not* with mere concept subordinations, but with the spatiotemporal mathematical and dynamical relations by means of which objects of knowledge are constituted and individuated. Indeed the most prolific of Hermann Cohen's neo-Kantian successors, Ernst Cassirer, advocated appealing to a logic of relations to capture the Kantian “logic of objective knowledge” or transcendental logic.⁵² Examining this suggestion would take us beyond the scope of the present chapter. In any event, two points should be kept in mind. The first is that according to Kant, the relational features of appearances laid out by transcendental logic are made possible by synthesizing intuitions under the guidance of logical functions of judgment as he understands them. In other words, the source of the relations in question is itself no other than the very elementary discursive functions (functions of concept-subordination) laid out in his table and guiding syntheses of a priori spatiotemporal manifolds. The second point to keep in mind is that however fruitful a formalization of Kant's principles of transcendental logic in terms of a modern quantificational logic of relations might be, it does not by itself accomplish the task Kant wants to accomplish with his transcendental logic and his account of the nature of categories, which is to explain how our knowledge of objects is possible in general, and thus explain why any attempt at a priori metaphysics on purely conceptual grounds is doomed to fail.

⁵¹ *Ibid.*, §9.

⁵² See Cassirer, *Substanzbegriff und Funktionsbegriff*. Peter Schulthess has defended the view that Cassirer's emphasis on the relational nature of Kant's transcendental logic as well as his emphasis on the ontological primacy of relations, not substances, is in full agreement with Kant's own view, including his view of logic. See Schulthess, *Relation und Funktion*. Michael Friedman has defended the relevance of Cassirer's version of neo-Kantianism for contemporary philosophy of science: see Michael Friedman, *A Parting of the Ways: Carnap, Cassirer and Heidegger* (Chicago and La Salle, Ill.: Open Court, 2000), especially ch. 6, pp. 87–110; and “Transcendental philosophy and a priori knowledge: a neo-Kantian perspective,” in Paul Boghossian and Christopher Peacocke (eds.), *New Essays on the A Priori* (Oxford: Clarendon Press, 2000), pp. 367–84.

KANT'S DECONSTRUCTION OF THE PRINCIPLE OF SUFFICIENT REASON

On three occasions in the *Critique of Pure Reason*, Kant takes credit for having finally provided the proof of the “principle of sufficient reason” that his predecessors in post-Leibnizian German philosophy had sought in vain. They could not provide such a proof, he says, because they lacked the transcendental method of the *Critique of Pure Reason*. According to this method, one proves the truth of a synthetic a priori principle (for instance, the causal principle) by proving two things: (1) that the conditions of possibility of our experience of an object are also the conditions of possibility of this object itself (this is the argument Kant makes in the Transcendental Deduction of the Categories); (2) that presupposing the truth of the synthetic principle under consideration (for instance, the causal principle, but also all the other “principles of pure understanding”) is a condition of possibility of our experience of any object, and therefore (by virtue of [1]), of this object itself. What Kant describes as his “proof of the principle of sufficient reason” is none other than his proof, according to this method, of the causal principle in the Second Analogy of Experience, in the *Critique of Pure Reason* (cf. A200–1/B246–7, A217/B265, A783/B811).

Now this claim is somewhat surprising. In Leibniz, and in Christian Wolff – the main representative of the post-Leibnizian school of German philosophy discussed by Kant – the causal principle is only one of the specifications of the principle of sufficient reason. And Kant himself, in

the pre-critical text that discusses this principle, distinguishes at least four types of reason, and therefore four specifications of the corresponding principle – *ratio essendi* (reason for being, that is, reason for the essential determinations of a thing), *ratio fiendi* (reason for the coming to be of a thing’s determinations), *ratio existendi* (reason for the existence of a thing), and *ratio cognoscendi* (reason for our knowing that a thing is thus and so).¹ Only the second and the third kinds of reasons (reason for coming to be, reason for existence) are plausible ancestors of the concept of cause discussed in the Second Analogy of Experience. Why then does Kant describe as his proof of the principle of sufficient reason a proof that, strictly speaking, is only a proof of the causal principle, and what happens to the other aspects of the notion of reason or ground that Kant discussed in the pre-critical text?

I shall suggest in what follows that in fact Kant’s response to Hume on the causal principle in the Second Analogy of Experience results in his redefining all aspects of the notion of reason (and, therefore, of the principle of sufficient reason): not only the reason for coming to be and the reason for existing (*ratio fiendi* and *ratio existendi*), but also the reason for the essential determinations of a thing and the reason for our knowing that a thing is thus and so (*ratio essendi* and *ratio cognoscendi*) – at least when these notions are applied to the only objects for which one can affirm the universal validity of some version of the principle of sufficient reason, the objects of our perceptual experience.

In talking of “Kant’s deconstruction of the principle of sufficient reason,” what I intend to consider, then, are two things. First, Kant’s detailed analysis of the notion of *ratio* (reason, ground) and of the principle of sufficient reason in his pre-critical text. Second, Kant’s new definition, in the critical period, of all types of *ratio* and all aspects of the principle of sufficient reason.²

¹ These four kinds of reason, *ratio*, appear in Kant’s *Principiorum Primorum Cognitionis Metaphysicae Nova Dilucidatio*, AA1, pp. 391–8; trans. David Walford and Ralf Meerbote, *A New Elucidation of the Principles of Metaphysical Cognition* (henceforth *New Elucidation*), in *Theoretical Philosophy, 1755–1770*. Walford and Meerbote translate the Latin *ratio* by ground, and thus *principium rationis sufficientis* by principle of sufficient ground, which seems odd. I have preferred to keep the term reason, and thus principle of sufficient reason, despite the more epistemic and less ontological connotation of the term reason. On this point, see also n. 2.

² A point of vocabulary is in order here. The Latin term Kant uses in the 1755 *New Elucidation* is *ratio*. In German, it becomes *Grund*. “Principle of sufficient reason” is in Latin *principium rationis sufficientis*, in German *Satz vom zureichenden Grund*. Because the word “reason” appears in the “principle of sufficient reason,” I will use the English “reason” for *ratio*, but

One interesting result of comparing Kant's pre-critical and critical views is that a striking reversal in Kant's method of proof becomes apparent. In the pre-critical text, Kant starts from a logical/ontological principle of sufficient reason, moves from there to a principle of sufficient reason of existence (which he equates with the causal principle), and from there to what he calls a principle of succession (a principle of sufficient reason for the changes of states in a substance). By contrast, in the critical text (the Second Analogy of Experience), Kant proves a principle that looks very much like the principle of succession in the *New Elucidation*, which he equates with the causal principle. And in doing this he declares he is providing "the only proof" of the principle of sufficient reason of existence and – I shall argue – he also redefines the respective status of the ontological and logical principles themselves. In short, instead of moving from logic to time-determination, in the critical period one moves from time-determination to logic. This reversal of method is related to the discovery of a completely new reason or ground: the "transcendental unity of self-consciousness" as the reason of reasons, or the ground for there being any principle of sufficient reason at all. The discovery of this new ground has striking consequences for Kant's critical concept of freedom, which I shall consider at the end of the chapter.

The principle of determining reason in Kant's new explanation of the first principles of metaphysical knowledge

Kant first defines what he means by "reason" or "ground" (*ratio*). His definition places this notion in the context of an analysis of propositions, or rather, of what makes propositions true.³ It is in this context that he

sometimes add "ground" in parenthesis, to avoid any confusion with the *faculty* of reason (in German, *Vernunft*). In the texts from the early 1760s, *logischer Grund* and *Realgrund* are usually translated "logical ground" and "real ground," so in discussing these texts I shall often switch to "ground."

³ By "proposition," Kant means what he calls in the critical period "assertoric judgment," namely a judgment asserted as true. A judgment for Kant is the content or the intentional correlate of an act of judging. If I judge that the world contains many evils, "the world contains many evils" is the content of my act of judging. It is also a proposition, a judgment asserted as true. If I merely entertain the thought that the world may contain many evils, without taking the statement "the world contains many evils" to be true, then the content of my thought is a mere judgment, not a proposition, in Kant's vocabulary. To move from a mere judgment to a proposition (a judgment held to be true), one needs a reason. This, then, is the context in which Kant defines his notion of "reason" or "ground."

explains why he prefers to speak of “determining” rather than “sufficient” reason:

To determine is to posit a predicate while excluding its opposite. What determines a subject with respect to a predicate is called the reason. One distinguishes an *antecedently* and a *consequently* determining reason. The *antecedently* determining reason is that whose notion precedes what is determined, i.e. that without which what is determined is not intelligible.* The *consequently* determining reason is that which would not be posited unless the notion of what is determined were already posited from elsewhere. The former can also be called reason *why* or reason for the being or becoming (*rationem cur scilicet essendi vel fiendi*); the latter can be called reason *that* or reason of knowing (*rationem quod scilicet cognoscendi*).

* To this one may add the identical reason where the notion of the subject determines the predicate through its perfect identity with it, for instance a triangle has three sides; where the notion of the determined neither follows nor precedes that of the determining.⁴

Kant gives two examples. Here is the first: we have a consequently determining reason for affirming that the world contains many ills, namely our own experience of those ills. But if we also look for an antecedently determining reason, we must search for that which, in the essence of the world, or in its relation to some other being, provides the ground or reason for the predicate’s (for example, “containing many ills”) being attributed to the subject (“world”) and its opposite (say: “perfectly good”) being excluded.

Kant’s second example is the following: we have a consequently determining reason for asserting that light travels not instantaneously but with an ascribable speed. This reason consists in the eclipses of the satellites of Jupiter – or more precisely, in the delay in our observation of those eclipses – a delay that is a consequence of the non-instantaneous travel of light. But we also have an antecedently determining reason. This consists, according to Kant, in the elasticity of the aether particles through which light travels, which delays its movement.⁵

⁴ *New Elucidation*, §2, AAII, p. 391.

⁵ Kant’s view of light as a movement of fine aether particles is borrowed from Descartes. But Kant opposes Descartes in maintaining that these particles are elastic rather than absolutely hard, thus delaying the transmission of light (see Kant, *New Elucidation*, AAII, pp. 391–2, and René Descartes, *Principes de la philosophie*, ed. Charles Adam, Paul Tannery, and Centre National de la Recherche Scientifique, 12 vols. (Paris: Librairie philosophique Vrin, 1971), part III, §§63–4 and part IV, §28, vol. IX-2, pp. 135–6 and 215; trans. John Cottingham,

The distinction between antecedently and consequently determining reason, as presented here, is disconcerting: clearly, the two kinds of reason are quite heterogeneous. One is a reason for holding the proposition to be true. The other is a reason for the proposition's being true, that is, for the state of affairs' obtaining. Kant does recognize this difference, since at the end of his definition he characterizes the former as a reason for knowing (*ratio cognoscendi*), the latter as a reason for being or coming to be (*ratio essendi vel fiendi*). But he does not stress this aspect of the distinction in his initial characterization of reasons. Both reasons are described as reasons for the determination of a subject with respect to a predicate. This seeming hesitation in Kant's definition of reason (ground) will be important for what follows.

Having thus defined the notion of reason (*ratio*) and distinguished two main kinds of determining reason, Kant criticizes Wolff's definition. Wolff, he says, "defines reason (or ground) as that from which it is possible to understand why something is rather than is not [*definit enim rationem per id, unde intelligi potest, cur aliquid potius sit, quam non sit*]." ⁶ Kant objects that this definition is circular. It amounts to saying: "Reason is that from which it is possible to understand for what reason something is rather than is not." This circularity is avoided if one says, rather: reason is that by which the subject of a proposition is determined, that is, that by virtue of which a predicate is posited and its opposite is negated. That is why it is preferable to speak of determining rather than sufficient reason. ⁷

But is it so clear that the Wolffian definition is circular? It is so only if the same thing is meant by "reason" (in: "reason is that from which it is possible to understand," *ratio est, unde intelligi potest*) and by "why" ("why something is rather than is not," *cur aliquid sit potius quam non sit*). But that is not necessarily so. Wolff might have meant that the reason in the proposition is that from which it is possible to understand the why (the reason) in things. The parallelism of logical and ontological relations

Robert Stoothof, and Dugald Murdoch, *Principles of Philosophy*, in *The Philosophical Writings of Descartes*, 3 vols. (Cambridge: Cambridge University Press, 1984, 1985, 1991), 1, pp. 260, 270. I am grateful to Michelle and Jean-Marie Beysade for having clarified the Cartesian example for me.

⁶ Cf. Christian Wolff, *Philosophia Prima sive Ontologia* (Frankfurt-am-Main and Leipzig, 1736; repr. in *Gesammelte Werke* (Hildesheim and New York: Georg Olms, 1962-), §56. Kant slightly alters Wolff's definition. Wolff actually writes, "Per rationem sufficientem intelligimus id, unde intelligitur, cur aliquid sit." "By sufficient reason, we understand that from which it is understood why something is." As Kant's main discussion is about the meaning of *cur* (why), however, the variation is of no consequence and we can ignore it.

⁷ *New Elucidation*, AA1, p. 393.

would justify Wolff's statement and dissolve the objection of circularity. The reason Kant nevertheless formulates this objection is probably that he shares Wolff's view that understanding the reason in propositions and the reason in things is really understanding one and the same thing, the same object of intellect. But what we want to know is what is thereby understood. Response: what is understood is what determines a subject in relation to a predicate, that is to say, what posits the predicate and excludes its negation.

This is where the distinction between antecedently and consequently determining reason comes into play. But if one accepts it, then another, more severe objection to Wolff is in order. For as we saw, Kant expressly says that the antecedently determining reason is a reason why (*ratio cur*) but that the consequently determining reason is only a reason that (*ratio quod*). Given this distinction, why does Kant not make this objection to Wolff (the reason why is not the only kind of reason), an objection that seems, at this point, more damning than that of circularity?

This is probably because he also shares Wolff's (and Leibniz's) view that the only reason worthy of the name is the antecedently determining reason. For it is not only just a reason for our holding a proposition to be true, but a reason for its being true. Here's what he says on the example of the world and its ills:

Suppose we look for the reason of ills in the world. We have thus a proposition: the world contains many ills. We are not looking for the *reason that* or reason of knowing, for our own experience plays this role; but we are looking for the reason *why* or the reason for coming to be [*ratio cur scilicet fiendi*], i.e. a reason such that when it is posited, we understand that the world is not undetermined with respect to the predicate but on the contrary, the predicate of ills is posited, and the opposite is excluded. The reason (ground), therefore, *determines* what is at first indeterminate. And *since all truth is produced by the determination of a predicate in a subject, the determining reason is not only a criterion of truth, but its source, without which there would remain many possibles, but nothing true*.⁸

The whole ambiguity of Kant's position is manifest in this passage. For on the one hand, Kant's notion of reason (ground) is characterized as a reason for asserting a predicate of a subject, without which there would be no proposition susceptible of truth or falsity, that is to say, on our part, us judging subjects, no act of asserting rather than suspending our

⁸ *Ibid.*, p. 392. Emphasis in the last sentence is mine.

judgment. And the force of his statement that there must always be a reason for determining a subject with respect to a predicate clearly rests on the common intuition that *we* need a reason for holding a proposition to be true. But understood in this way, the reason could very well be what Kant calls a mere criterion of truth and not its source. Nonetheless, Kant immediately adds: the reason is not simply a criterion. To deserve the name “reason,” it has to be the source of the truth of the proposition.

The very same ambiguity is at work in Kant’s pre-critical proof of the principle of sufficient reason (or of determining reason). The principle is thus formulated: “Nothing is true without a determining reason.” Here, “nothing” clearly means “no proposition,” as is shown in the proof that immediately follows Kant’s statement of the principle:

- 1 All true propositions state that a subject is determined with respect to a predicate, that is to say, that this predicate is affirmed and its opposite is excluded.
- 2 But a predicate is excluded only if there is another notion that, by the principle of contradiction, precludes its being affirmed.
- 3 In every truth there is therefore something that, by excluding the opposite predicate, determines the truth of the proposition (from [1] and [2]).
- 4 That is precisely what is called the determining reason (definition).
- 5 So, nothing is true without a determining reason (from [3] and [4]).⁹

This “proof” does little more than restate what was already said in Kant’s initial characterization of a reason: a true proposition is one in which a subject is determined with respect to a predicate (premise [1]). What does the determination is the reason (premise [2], and propositions [3] and [5] derived from [1] and [2]).

Consider again the proposition: “Light travels with an assignable, finite speed.” To think that the proposition is true is to assert that the predicate, “travels with an assignable, finite speed,” belongs to the subject, “light,” and that its negation, “travels instantaneously,” is excluded (this is what premise [1] says). However, for such an exclusion to obtain, there needs to be a reason (otherwise we might admit as problematic or as possible both judgments, light travels instantaneously, light travels with an assignable, finite speed). Now, the consequently determining reason provided by the delay in our observation of the eclipses of

⁹ *Ibid.*, prop. 5, AA1, p. 393. I have followed the progress of Kant’s argument, only ignoring a few repetitions.

Jupiter's satellites excludes that the travel should be instantaneous, by virtue of the syllogism in *modus tollens*: "If all light-travel is instantaneous, there is no delay in the eclipses of Jupiter's satellites; however, there is a delay. So, it is not the case that all light-travel is instantaneous." For its part the antecedently determining reason excludes instantaneous travel by the syllogism in *modus ponens*: "If aether particles are elastic, then all light travel is delayed (non-instantaneous); however, aether particles are elastic. So, all light travel is delayed." The exclusion of the opposite predicate may be derived either from the *modus tollens* appropriate to the consequently determining reason or from the *modus ponens* appropriate to the antecedently determining reason.¹⁰

We see again in this example that, even if it is granted that a *reason* is needed for moving from a merely problematic judgment (one with respect to which assent is suspended) to a proposition (a judgment asserted as true), it does not follow at all that for every truth there is an antecedently determining reason, *ratio cur*. Nonetheless, just as in his definition of reason or ground (*ratio*, *Grund*) Kant moved without any argument from distinguishing between two types of reason (antecedently and consequently determining reason) to maintaining that only one kind of reason is relevant (the antecedently determining reason, reason for being or becoming, reason why), similarly here, Kant substitutes for the cautious conclusion that it is in the nature of propositions (assertoric judgments) that there should be a reason for the determination of the subject in relation to the predicate (whether this reason be

¹⁰ A few quick remarks regarding my presentation of the two kinds of reasons in terms of *modus ponens* and *modus tollens*: Kant does not explicitly give such an explanation. But the expressions *ratio consequenter determinans* and *ratio antecedenter determinans* seem to me to be an unambiguous reference to the idea of determining by the antecedent and determining by the consequent of a hypothetical judgment. The corresponding logical forms are *modus ponens* and *modus tollens*. Making this reference explicit has three main advantages. (1) We see more clearly that the two species of *ratio* do not have the same force. The *ratio ponens* allows us to assert universally that all light-travel is delayed (it allows us to exclude in all cases that light-travel is instantaneous). The *ratio tollens* only allows us to deny a universal judgment, excluding in this case that light-travel is instantaneous and thus allows us to deny the universal judgment: all light-travel is instantaneous. (2) We shall see in a moment that when Kant, just a few years later, puts into doubt the universal validity of the antecedently determining reason, he expresses this doubt in terms of *ratio ponens*: he asks, what is the synthetic *ratio ponens*? This confirms that his notion of reason or ground had always been thought in light of *modus ponens* (or *tollens*). (3) In the critical period, when Kant distinguishes a logical principle and a transcendental principle of sufficient reason, he will define the logical principle in terms that clearly refer to the two forms, *modus ponens* and *modus tollens*. There is thus a deep continuity in his thought on this point, which it is important to keep in mind (see below, pp. 137–8).

antecedently or consequently determining), a far more ambitious statement: there is always an antecedently determining reason for any truth:

That the knowledge of truth always demands that we perceive a reason, this is affirmed by the common sense of all mortals. But most often we are content with a consequently determining reason, when what is at issue is only our certainty; but it is easy to see, from the theorem and the definition, that there is always an antecedently determining reason or, if you prefer, a genetic or an identical reason; for the consequently determining reason does not *make* truth, but only *presents* it.¹¹

From this ambitious version of the principle of sufficient reason Kant derives important metaphysical consequences that in the years to come will motivate his growing discomfort with his own pre-critical position, and more generally with rational metaphysics.

The first consequence of this is a proof of the principle of sufficient reason for the existence of contingent things. This is where the concept of cause occurs for the first time in the *New Elucidation*: the reason of existence is a cause.

As a preliminary to proving a principle of sufficient reason of existence, Kant first establishes the negative proposition, “It is absurd that something should have in itself the reason of its existence.”¹² Kant’s proof for this proposition rests on the – unquestioned – assumption that a cause necessarily precedes its effect in time. So, if a thing were the cause of itself, it would have to precede its own existence in time, which is absurd. Therefore nothing is the reason of its own existence: Kant expressly opposes Spinoza’s notion of a God that is *causa sui*, cause of itself.

On the other hand it is true to say that God’s existence is necessary, or that the proposition, “God exists,” is necessarily true. But this is not because God is the cause of himself. It is not even because his existence is contained in his essence (as in the “Cartesian proof”). Rather, it is because he is the unique being that is the ground of everything possible. I will not attempt to lay out and analyze Kant’s proof of this point. Let me just note that, according to Kant’s pre-critical view, if we affirm the existence of God, or if we assert the proposition, “God exists,” as necessarily true, it is not by virtue of an antecedently determining reason (whether of being, of coming to be, or of existing). There is no

¹¹ *New Elucidation*, prop. 5, AA1, p. 394.

¹² *Ibid.*

antecedently determining reason for God's existence, not even in God himself. But we have a reason to assert that he exists and that this existence is absolutely necessary. We know this by a reason for knowing of a unique kind, which Kant will further elaborate in the 1763 text, *The Only Possible Argument in Support of a Demonstration of the Existence of God* and then thoroughly refute in the Transcendental Ideal of the first *Critique*.¹³

Kant then sets about proving a principle of antecedently determining reason for the existence of contingent things. The principle is: "Nothing contingent can be without an antecedently determining reason (a cause) of its existence."

The proof, roughly summarized, is the following:

- 1 Suppose a contingent thing exists without an antecedently determining reason.
- 2 As an existing thing, it is completely determined, and the opposite of each of its determinations is excluded (definition of existence as complete determination).
- 3 But according to the hypothesis, this exclusion has no other reason than the thing's existence itself. Even more, this exclusion is identical: the very fact that the thing exists is what excludes its non-existing.
- 4 But this amounts to saying that its existence is absolutely necessary, which is contrary to the hypothesis.
- 5 So, nothing contingent can be without an antecedently determining reason.

¹³ *Ibid.*, p. 395. *The Only Possible Argument in Support of a Demonstration of the Existence of God*, AAII, pp. 83–4, trans. in *Theoretical Philosophy, 1755–1770. Critique of Pure Reason*, A581–2/B609–10. The pre-critical proof rests on the idea that the notion of possible has a "formal" aspect (what is possible is what is thinkable, and what is thinkable is what is non-contradictory) and a "real" aspect (*something* must be thought). Both aspects presuppose that what is possible (thinkable) is grounded in one and the same being, which thus necessarily exists. The Transcendental Ideal will oppose to this "proof" that the matter of all possibilities, as well as the comparability of all possibilities (the formal aspect of the possible) are provided not by an absolutely necessary being, but by the whole of reality, given to the senses, presupposed for the collective unity of possible experience and of its objects (see A581–2/B609–10, and ch. 8 in this volume, pp. 214–23). Gérard Lebrun has convincingly shown that already in the pre-critical period, by renouncing the Cartesian ontological proof Kant has given up the metaphysical notion of essence as a degree of perfection and initiated instead a consideration of the conditions under which thoughts have meaning. See Gérard Lebrun, *Kant et la fin de la métaphysique* (Paris: Armand Colin, 1970), pp. 13–34. See also *KCJ*, p. 154.

The proof rests on three presuppositions: (a) existence is complete determination: an existing thing is individuated by the fact that, given the totality of possible predicates, for each and every one of them, either it or its negation is true of the individual existing thing; (b) as such, it falls under the principle of determining reason stated above; (c) this principle should be understood as a principle of antecedently determining reason. If we accept all three presuppositions, then we can avoid the absurd conclusion that a contingent existence is absolutely necessary only if we accept that every contingent thing has an antecedently determining reason not only of its determinations (*ratio essendi vel fiendi*) but of its existence itself (*ratio existendi*).

The second consequence of the ambitious version of the principle of sufficient reason is a “principle of succession,” stated as follows: “No change can affect substances except insofar as they are related to other substances, and their reciprocal dependence determines their mutual change of state.” Kant’s argument for this principle is that if the ground or reason of the change of states of a substance were within it, then the state that comes to be should always have been (given that its *ratio fiendi* was always present in the substance). So, a state that was not and comes to be must have its ground not in the substance itself but in its relation to another substance or to other substances. (Note that this is a fundamentally anti-Leibnizian view: contrary to Leibniz, according to Kant individual substances have real influence upon one another’s states.)¹⁴

Finally, Kant devotes a fairly long discussion to the relation between the principle of sufficient reason and human freedom. Here he opposes a view defended by his predecessor Crusius. According to Crusius, in some cases the existence of a state of affairs or an event is without an antecedently determining reason. It can be affirmed only by virtue of a *ratio cognoscendi*, which is none other than the existence of the state of affairs itself as attested by experience. Such is the case with free action: that the will should decide of its own free choice, without any

¹⁴ This principle is complemented by a “principle of coexistence”: “Finite substances stand in no relation to one another through their mere existence and have no community except insofar as they are maintained in reciprocal relations through the common principle of their existence, namely the divine intellect” (*New Elucidation*, AA1, pp. 412–13). Just as the “principle of succession” is the ancestor of the Second Analogy of Experience, the “principle of coexistence” is the ancestor of the Third Analogy. But of course, in the *Critique of Pure Reason*, as we shall see, Kant will prove both principles from the conditions of our experience of objective time-determinations, not from the application of a previously established principle of sufficient reason. Undertaking a detailed analysis of those two principles and their proof in the *New Elucidation* is beyond the scope of the present chapter.

antecedently determining reason, in favor of one action rather than another, is a fact attested by experience.¹⁵ To this Kant objects that if an action, or the will's determination to act, were without an antecedently determining reason then, since the determination of the will to act and the ensuing action have not always existed, their transition into existence would remain undetermined – that is to say, for the action as well as for the determination of the will, it would remain undetermined that it should be rather than not be. Kant's response in this case rests on the same presuppositions as his general argument concerning the reason of existence: in order to justifiably assert that a thing has come to be, we need not only a *ratio cognoscendi* (*ratio consequenter determinans*), but also a *ratio fiendi*, the *ratio antecedenter determinans* of its complete determination.¹⁶

To the question: “is this principle of reason applied to human action compatible with freedom of the will and freedom of action?” Kant answers – again against Crusius – that being free is not acting without a reason, but on the contrary acting from an internal reason that inclines one to act without any hesitation or doubt in one way rather than another. Kant, here, is faithfully Leibnizian.

I have suggested above that the main weakness of Kant's argument is the way in which he jumps from the distinction between antecedently and consequently determining reason for asserting the truth of a proposition to the claim that there is always an antecedently determining reason, a reason why. It will not be long before the universality of the *ratio cur* raises doubts in Kant's mind. But his doubts will focus at first not on the principle of reason and its proof, but on particular cases of connection between the *ratio* and the *rationatum*. For the analysis of these cases, Kant introduces, at the beginning of the 1760s, the distinction between logical reason and real reason (or logical ground and real ground), and emphasizes the synthetic character of the real ground. When the Humean alarm clock does its work, the investigation of the relationship of real ground to its consequences becomes generalized into an investigation concerning the notion of reason or ground in general, and the principle of sufficient reason itself.

¹⁵ Cf. Crusius, *Dissertatio de usu et limitibus principii rationis determinantis, vulgo sufficientis* (Leipzig, 1743) (*Dissertation on the use and limits of the principle of determining reason, commonly known as the principle of sufficient reason*). See also *Entwurf der notwendigen Vernunftwahrheiten, wie sie den zufälligen entgegen gesetzt werden* (*Metaphysik*), 2nd edn (Leipzig, 1753) (*Outline of the necessary truths of reason, insofar as they are opposed to contingent truths* (*Metaphysics*)), esp. § 126.

¹⁶ *New Elucidation*, props. 8 and 9, AA1, pp. 396–7, 398–406.

Skeptical interlude: logical reason and real reason.

The synthetic *ratio ponens*

In the *Lectures on Metaphysics* from the 1760s, Kant remarks on the difficulty of accounting for the relation between *ratio* and *rationatum* in the case of what he now calls *ratio realis* (real ground), so as to distinguish it from *ratio logica* (logical ground). The logical ground (or reason), he says, is posited by identity. But the real ground is posited without identity. The examples show that by “real ground” he means the relation of ground that connects one *existence* to another *existence*, in other words what, in the *New Elucidation*, he called *ratio existendi*, or cause:¹⁷

All grounds (reasons) are either logical, by which the consequence is posited by the rule of identity, where the consequence is identical with the antecedent as a predicate. Or real, by which the consequence is not posited according to the rule of identity and is not identical with the ground. For instance: whence evil in the world? Response as to the logical ground: because in the world there are series of finite things, which are imperfect; if one seeks the real ground, then one seeks the being that brings about evil in the world.

The connection between logical ground and consequence is clear: but not that between real ground and consequence, that if something is posited, something else at the same time must be posited. Example: God wills! The World came to be. “Julius Caesar!” The name brings us the thought of the ruler of Rome. What connection?¹⁸

One can find almost the same examples in the *Attempt to Introduce the Concept of Negative Magnitudes into Philosophy*, which dates from the same period.¹⁹

¹⁷ Already in the *New Elucidation*, Kant stressed the necessity of distinguishing between the ground of truth and the ground of existence, that is to say on the one hand *ratio essendi* or *fiendi*, and on the other hand *ratio existendi* or cause. But he did not call the former “logical ground” or the latter “real ground.” True, he did mention the distinction made by Crusius between ideal ground and real ground. But this distinction is not the same as the one Kant introduced in the 1760s between logical ground and real ground. Rather, Crusius’ ideal reason, as Kant himself points out in the *Attempt to Introduce the Concept of Negative Magnitudes into Philosophy*, is what Kant calls, in the *New Elucidation*, *ratio cognoscendi*, the ground of knowing. Cf. Kant, *Attempt to Introduce the Concept of Negative Magnitudes into Philosophy*, AAII, p. 203 (trans. in *Theoretical Philosophy, 1755–1770*). Cf. Crusius, *Entwurf*, §34ff.

¹⁸ AAxxviii, p. 12.

¹⁹ AAII, p. 202.

In the question, “what is the connection between two distinct existences?” one can recognize Hume’s problem.²⁰ But, as I have argued elsewhere, when Kant poses the question, it is in the terms of the Wolffian school’s logic: how are we to understand that “if one thing is posited, another thing is posited at the same time”? This vocabulary is that of Wolff’s analysis of syllogisms in *modus ponens*. In a hypothetical syllogism, *si antecedens ponitur, ponendum quoque est consequens* (if the antecedent is posited, the consequent must also be posited).²¹ Interestingly, it is in the context of the *modus ponens* characteristic of real ground that, it seems, Kant introduced for the first time the distinction between analytic and synthetic connection:

The relation of positing reason [*respectus rationis ponentis*] is *connection*, of negating reason [*tollentis*] is *opposition*. The relation of logical positing or negating reason is *analytic* – rational. The relation of positing or negating reason is *synthetic* – empirical.²²

Only with the *Critique of Pure Reason* does Kant think he has answered to his satisfaction the question: what is the nature of the synthetic connection between *ratio* and *rationatum*, what is the nature of the real ground? His answer is the following: the relation of real ground, that is to say, the necessary connection between two distinct existences, is the connection that must necessarily exist for any order of time to be determinable among the objects of our perceptual experience. But then, the “principle of succession,” which in the *New Elucidation* was a consequence of the principle of sufficient reason, becomes the ground of its proof. This means that the whole proof-structure of the *New Elucidation* is reversed: Kant does not proceed from a principle of reason that is both logical and ontological (every truth must have its reason, every attribution of a property to a thing must have its reason), to a principle of reason of existence (every contingent existence must have its reason) and finally to a principle of succession (every change of state of a substance must have its reason in the state, or change of state, of another substance). Instead, he now proceeds from a principle of succession (the

²⁰ “Hume’s problem” is Kant’s description for Hume’s skeptical doubt about our idea of necessary connection: see *Prolegomena*, AArv, p. 261. On Kant’s relation to “Hume’s problem,” see *KCJ*, p. 357, especially n. 66. And in this volume, ch. 6, pp. 147–57.

²¹ Christian Wolff, *Philosophia rationalis sive Logica* (Frankfurt and Leipzig, 1740), repr. in *Gesammelte Werke* (Hildesheim and New York: Georg Olms, 1962–, II-1), §407–8. Cf. *KCJ*, p. 352. See also in this volume, ch. 6, pp. 150–1.

²² *Reflexion* 3753 (1764–6), AAxxvii, p. 283.

Second Analogy of Experience: “everything that happens presupposes something upon which it follows according to a rule”) to a redefinition of the notion of reason or ground and, with it, to the revision of the principle of reason in all its aspects – whether it concerns the reason of existence, the reason of being or of coming to be, or even the reason of knowing. It is this reversal that I would like now to examine.

**The critical period: objective unity of self-consciousness
and the principle of sufficient reason**

The Analogies of Experience are the principles obtained by applying to appearances the three categories of relation: substance/accident, cause/effect, and interaction. The Analogy now under consideration is the Second Analogy: the causal principle, whose proof Kant takes to be “the only proof of the principle of sufficient reason.”

Before considering Kant’s argument in the Second Analogy of Experience, I should briefly recall three points that Kant takes himself to have established in earlier parts of the *Critique of Pure Reason*, before reaching the Analogies. The three points are the following. (1) Things as they appear to us are perceived as having temporal determinations (relations of succession and simultaneity) only if they are related to one another in one time (Transcendental Aesthetic, A30/B46). (2) Things as they appear to us are related to one another in one time only if they appear to a perceiving consciousness aware of the unity and numerical identity of its own acts of combining the contents of its perceptions (Transcendental Deduction, A107/B139–40). (3) These acts are acts of forming judgments (Transcendental Deduction, B140–1).

By virtue of the second and third points, the reversal I described a moment ago in Kant’s order of proof (proceeding in the critical period from reason (or ground) of succession to reason of existence and reason in general), is inseparable from Kant’s discovery of a new reason or ground, one that has no precedent in his pre-critical texts (or, for that matter, in the history of philosophy): what Kant calls the objective unity of self-consciousness (namely the unity and numerical identity of the self-conscious act of combining representations), which is now the transcendental ground of there being any grounds, or reasons, at all, and of the principle of sufficient reason itself.

In what follows, I will first analyze Kant’s principle of succession in the *Critique of Pure Reason*, namely the Second Analogy of Experience. I will

then show how this principle and its proof lead to a redefinition of the reason or ground in all its aspects – reason of existence, of coming to be, of being, and even of knowing. Finally I will show what happens to the relation between the principle of sufficient reason and Kant’s concept of freedom.

The proof of the Second Analogy of Experience

I have analyzed this proof elsewhere.²³ I will not attempt to repeat that analysis here, nor will I evaluate Kant’s argument in the Second Analogy. I will consider only those aspects of it that are necessary for our understanding of the critical notion of reason or ground, *ratio*.

The question Kant asks himself is well known: how do we relate the subjective succession of our perceptions to an objective temporal order, given that we have no perception of “time itself” that could provide us with the temporal coordinates in reference to which we might determine the positions of things or their changes of state? More specifically – this is the problem Kant deals with in the Second Analogy – how do we relate the subjective succession of our perceptions to an objective succession of the states of things?

Kant’s response is in two main stages. One, fairly swift, could be described as phenomenological. It consists in a description of our experience of an objective temporal order. The other, longer and more complex, rests on an argument developed earlier (in the Metaphysical Deduction and the Transcendental Deduction of the Categories), which concerns the role of the logical forms of our judgments in establishing an intentional relation between our representations and the objects they are the representations of (or we might say, the role played by logical forms of judgments in the directing of our representations toward objects). I will call this second stage the logical stage of the argument of the Second Analogy.

First, the phenomenological stage. We relate the subjective succession of our perceptions to an objective succession of the states of things, Kant maintains, if, and only if, we hold the subjective succession to be determined in its temporal order. In other words, if the subjective succession of perceptions is the perception of an objective succession, perception A that precedes perception B cannot follow it – or rather, a perception A’, generically identical to perception A that preceded B,

²³ See *KCJ*, pp. 345–75, and ch. 6 in this volume, pp. 157–77.

cannot follow perception B. To take up the well-known example Kant uses in the *Critique*, perceiving that a ship moves downstream: when I have such a perceptual experience I am aware that I could not decide arbitrarily to reverse the order of my perceptions and, for instance, perceive the ship again at point 1 after perceiving it at point 2. On the other hand, if the subjective succession is only subjective, that is to say if there corresponds to it in the object a relationship of temporal simultaneity, then I could, if I decided to do so, reverse the order of my perceptions and have perception A again, or a perception A' generically identical to A, after having perception B (for instance – to take up again Kant's example – perceive the front of the house again after perceiving the back).

One quick comment on this “phenomenological” stage of the argument and the examples that illustrate it. I think that the best way to understand the description Kant proposes is to consider it as a description of the use that we make of our imagination in perception. When we perceive a subjective succession *as* the perception of an objective succession, for instance in the perception of the ship moving downstream, at the very moment that we perceive the second position of the ship, if we imagine that our gaze returns to the point where we previously perceived the ship, what we imagine is that we would not perceive the ship in that place. This is what is meant by saying that the order of perceptions is determined. Of course, if the objective state of affairs were to change (if we had grounds for thinking that the ship had now been towed upstream), we could imagine that if we returned our gaze toward the preceding point, we would see the ship again. Therefore the awareness of the determined character of the order of our perception depends not only on our senses, but also on our imagination. It is precisely because it depends on the imagination that it can be guided both by and toward judgment.

And this leads us to the second stage of Kant's argument. In the first, Kant replied to the question, how is the subjective succession of our perceptions also the perception of an objective succession? His answer was that this is so just in case the subjective succession is represented as determined in its temporal order (namely, when we do not imagine that we would perceive the same thing if our gaze were to return to the point upon which it was focused a moment before). But this calls for answering a second question: how and why do we hold the subjective succession to be determined in its temporal order (why do we not imagine that we could again perceive the same state of things at the point upon

which we focused our gaze a moment earlier)? Here Kant's answer becomes more complex. I suggest that it is summed up by the following three points. We hold the subjective succession to be determined in its temporal order if, and only if: (1) we establish an intentional relation between the representation and the independent object of which we take it to be the representation; (2) in doing so, we are led to hold the order of perceptions to be determined in the object, which means that (3) we presuppose another objective state of things that precedes the perceived succession and that determines its occurrence, according to a rule. Now if this is so, we can conclude that all perceptions of objective successions rest on the presupposition that "something precedes, upon which the perceived succession follows, according to a rule."²⁴ This "something which precedes, upon which the objective succession follows, according to a rule," is precisely what is called "a cause." It is therefore a condition of the experience of objective successions that every event (every objective succession of states in a thing) presupposes something upon which it follows according to a rule. But according to the Transcendental Deduction of the Categories, the conditions of the possibility of experience are also the conditions of the possibility of the object of experience. Therefore, it is a condition of the possibility, not only of our experience of an objective succession, but of that succession itself, that something should precede it, upon which it follows according to a rule.

It would be a mistake to believe – as Schopenhauer apparently did²⁵ – that Kant maintains the absurd position that every objective succession is itself a causal relation. What Kant maintains is that we perceive – that is to say, we identify or recognize under a concept (or, more exactly, under concepts combined in judgments) – an objective succession only if we suppose a state of things preceding it, upon which it follows according to a rule. For all that, we do not know this antecedent state of things. We only presuppose it, and strive to identify it. So, for instance, perceiving that the ship, which was at point 1, has moved to point 2, is implicitly holding the proposition, "the ship, which was at p_1 , has moved to p_2 ," to be the conclusion of a hypothetical syllogism whose major premise, and therefore also whose minor premise, we do not know: "If q , then the

²⁴ Cf. A189; A193/B238.

²⁵ Cf. Schopenhauer, *Über die vierfache Wurzel des Satzes vom zureichenden Grund* (1813); trans. E. F. G. Payne, *On the Fourfold Root of the Principle of Sufficient Reason* (La Salle, Ill.: Open Court, 2001), ch. 4, §24.

ship, which was at p_1 , moves to p_2 ; but q ; therefore, the ship, which was at p_1 , has moved to p_2 ." If we could not suppose the existence of something that we could think under the antecedent q of a rule, "if q , then the ship, which was at p_1 , has moved to p_2 ," we would interpret the subjective succession of our perceptions differently. For example, I perceive a tower at point p_1 , and a moment later I perceive a (qualitatively) identical tower at point p_2 . It is impossible for me to suppose something that I could think of as the antecedent s of a rule, "if s , then the tower, which was at p_1 , has moved to p_2 ." So in this case, I need to order the temporal relation of the objects of my perceptions differently. I conclude that two towers that are qualitatively identical exist simultaneously at two distinct points in space.

The conclusion of the argument, therefore, is: every objective succession of states "presupposes something upon which it follows according to a rule,"²⁶ that is to say, it has a cause (*ratio fiendi* or *existendi* – both terms are appropriate here: the reason or ground is a ground of a state's coming to be [*ratio fiendi*], but it is also the only possible version of the *ratio existendi*, or ground of existence). The only existence for which one can seek a *ratio existendi* or cause is the existence of a state of a substance that did not exist before. As for the substance itself, the permanent substratum of every change of state, there is no sense in seeking a *ratio existendi*, a ground of existence.

Ratio existendi, ratio fiendi, ratio essendi

Does all of this suffice to explain why the causal principle stated and proved in the Second Analogy of Experience should take over the role of the principle of sufficient reason stated in the *New Elucidation*, in all its aspects? So far I have only explained how a descendant of the principle

²⁶ Admittedly, here Kant seems blithely to move from the epistemic point: "we presuppose something, upon which the change of states follows, according to a rule," to the ontological point "the change of states presupposes something upon which it follows, according to a rule" (see for instance A195/B240):

If, therefore, we experience that something happens, then *we always presuppose that something else precedes it*, which it follows according to a rule . . . Therefore I always make my subjective synthesis (of apprehension) objective with respect to a rule in accordance with which *the appearances in their sequence, i.e. as they occur, are determined through the preceding state* . . .

I say more about this move, and try to explain how Kant thinks he can justify it, in ch. 6, pp. 168–73.

of succession from the *New Elucidation* managed to take over the role of the principle of reason of existence, as well as that of the principle of reason of coming to be. But what happens to the other aspects of the principle of sufficient reason? And what happens to the objection I formulated earlier, which was that in the pre-critical period, Kant jumped too quickly from distinguishing between reason that and reason why to asserting that there is always a reason why? Well, this is perhaps where the most interesting aspect of Kant's critical position comes to the fore: Kant's view now provides a response to that objection that his pre-critical view could not provide. Kant can now assert that for every determination of a thing there is an antecedently determining reason (a reason determining by the antecedent), a reason *why*, whether this reason is contained in the essence of a thing (*ratio essendi*) or in its relation to other things (*ratio fiendi vel existendi*). But this is because the "essence" of empirical things, or what Kant now calls their "nature," consists in the marks under which they can be recognized as appearances, not in the properties they might have as things in themselves. This restriction is what makes it possible to assert the universal validity of the principle of sufficient reason understood as a principle of antecedently determining reason. The reason for a thing's determinations may lie in the (relatively or absolutely) permanent characteristics by which a thing can be recognized as the kind of thing it is (this argument was made in the First Analogy of Experience, which I have not examined here).²⁷ Or it may lie in "something that precedes any change of state, upon which this change of state follows, according to a rule" (this is the argument of the second Analogy of Experience, which I just briefly recounted). Finally, permanent as well as changing characteristics are determined in the context of the universal interaction of all things coexisting in space (this is the argument of the Third Analogy of Experience, the descendant of the principle of coexistence from the *New Elucidation*).²⁸

For the essence itself (what I called the relatively or absolutely permanent marks under which a thing is recognized as the kind of thing it is),

²⁷ The ordinary objects of our perceptual experience, Descartes' piece of wax, Kant's planets in the Third Analogy, and Kant's ship in the Second Analogy, are only relatively permanent; matter, characterized by extension, figure, and impenetrability, insofar as we take it to be the ultimate substrate of all spatiotemporal appearances, is absolutely permanent. The argument that all changes of state of a thing presuppose something permanent was made in the First Analogy (see A182/B224–A189/B232). On this point, see *KCJ*, pp. 325–45, and ch. 2 in this volume, pp. 53–4.

²⁸ On this principle, see *KCJ*, pp. 375–93, and ch. 7 in this volume.

there is no reason. It is just a fact about the relation between our cognitive capacities and the state of things that we recognize bodies in general under the marks of extension, figure, and impenetrability. It is a fact about the present use of our recognitional capacities that we recognize beeswax as the kind of thing that is hard, yellowish, and fragrant under normal conditions of temperature but becomes soft, sticky, browner, and so on, when heated up. As for the changes of states, for which the Second Analogy provides a principle of sufficient reason, no ultimate determining reason, or ground, can be found. For any event, the search for “something that precedes, upon which it follows, according to a rule,” can go on indefinitely. So, Kant’s critical proof of the principle of sufficient reason is also a severe restriction of its scope and force. Nevertheless, because he has thus proved a principle of sufficient reason that is understood as a principle of antecedently determining reason, reinterpreted in the terms of his critical philosophy and itself having its ground or reason in the unity of self-consciousness, Kant can affirm, in the preface to the *Critique of Pure Reason* and then again in the introduction to the Transcendental Dialectic, that it is an unavoidable destiny of reason (this time as a faculty, *Vernunft*) always to look for a further reason, or ground (*Grund*) of the objective determinations of things, while at the same time it can never claim to have found the *ultimate* ground.

Finally, it is clear that we must now distinguish between the principle of reason of propositions and the principle of reason of things and their determinations. It is a logical principle that every proposition (assertoric judgment) must have a reason, without which it would, at best, remain a merely problematic judgment whose negation could equally be admitted as problematic (possible). This principle, as Kant points out in the introduction to the *Logic* collated by his student Jäsche, can be specified in two ways: an assertoric proposition must (1) have reasons or grounds (*Gründe haben*) and (2) not have false consequences (*nicht falsche Folgen haben*).²⁹ In the first requisite, we may recognize the mere form of the *modus ponens* proper to the antecedently determining reason from the pre-critical *New Elucidation*, while in the second, we see that of the *modus tollens* proper to the consequently determining reason. But neither of these two versions of the logical principle of sufficient reason gives us any access to the reason, or ground, of the determinations of

²⁹ Cf. *Logic*, Einl. VII, AAIX, p. 51.

things. That there has to be a reason or ground for the determination of things was proven not from a logical principle of reason for the truth of propositions but from an elucidation of the conditions under which we can apprehend a temporal order among the objects of our perceptions.³⁰

This restriction of the principle of reason of things and their determinations to a principle of the determination of an objective temporal order, and the foundation of reasons, in the plural (whether empirical or logical), in *one* transcendental reason or ground, “transcendental unity of self-consciousness,” allow Kant to present an unprecedented solution to the problem of the relation between the principle of sufficient reason and human freedom.

*The principle of reason and human freedom: the ground beyond grounds
(the reason beyond reasons)*

In 1755 Kant insisted against Crusius that admitting the universal validity of the principle of sufficient (or determining) reason was compatible with affirming that human beings are free. For, he said, although it is true that everything that happens – and therefore also every human action – has an antecedently determining reason, in cases where this reason (ground) is not external (as in mechanical causality), but internal (as in divine action, and in those human actions where “the motives of understanding applied to the will provoke actions”),³¹ the action, although certain, is not necessitated. But in the Remark on the Analytic of the *Critique of Practical Reason*, Kant categorically rejects this kind of solution. Describing an action as free because its ground is not external but internal, he now maintains, amounts to attributing to human beings the “freedom of a turnspit,” which has in itself the source of its movement, its position, and internal structure at each moment determining its position at the following moment. The truth is, Kant now says, that in such a situation each change of state, far from originating from itself a new series of states, is strictly determined by the

³⁰ In his dismissive response to Eberhard in 1790, Kant noted that Eberhard entertained a confusion when he formulated the principle of reason as: “Everything has its sufficient reason.” “Everything,” Kant remarks, can mean “every proposition” or “every thing.” In the former case the principle is logical; in the latter it is transcendental (see *On a Discovery*, AA VIII, pp. 193–4). The confusion he denounces was his own in 1755 – even if, as we have seen, he was careful to distinguish reason of truths and reason of existences.

³¹ *New Elucidation*, AA I, p. 401.

change that precedes it.³² In the same way, whatever their mode of determination (whether according to the rules of skill, the advice of prudence, or the imperatives of morality), human actions, insofar as they are events in time, are strictly determined by the events that precede them in time. The principle of reason, proven in the Second Analogy, applies to them as it applies to every event. But the distinction between things as they appear to the senses (*phenomena*) and things accessible to the pure intellect (*noumena*), as well as the discovery of the equivalence between freely determined action and action determined under the representation of the moral law, allow Kant at the same time to adopt a position that is in certain respects very close to the position of Crusius, which he criticized in the *New Elucidation*: it is also true to say that at each instant there is no other antecedently determining reason of action than the will itself, acting under the representation of the moral law – whether or not the agent makes this law the supreme principle of the discrimination and ordering of his or her maxims. The temporal determination of the action is no more than the expansion over time of a non-temporal relation of the agent to the moral law for which, at every instant, s/he can and should be held accountable.³³

Significantly, it is again in the vocabulary of 1755 that Kant defines the relation between the moral law and freedom: freedom is the *ratio essendi* of the moral law, and the moral law is the *ratio cognoscendi* of freedom.³⁴ But this vocabulary really indicates that we have now arrived at the limit of antecedently determining reasons. For human freedom, there is no other reason than a *ratio cognoscendi*, moral law as a *Faktum* of reason (*Vernunft*) (not a given of reason, but rather a production of reason).³⁵ In the *New Elucidation*, for the existence of God one could state only a ground of knowing, and not a ground of being or existing (God, Kant strikingly stated, was the only being for which existence precedes possibility). With the critical system, for freedom as a property of human beings we must affirm that we have a ground of knowing but not that we have a ground of being or existing. Of course, according to Kant the

³² *Critique of Practical Reason*, AAv, p.97, trans. Mary Gregor (Cambridge: Cambridge University Press, 1997).

³³ On freedom and the moral law, see ch. 9 in this volume.

³⁴ *Critique of Practical Reason*, AAv, p.4n.

³⁵ *Ibid.*, pp.31–2.

same ground of knowing – the moral law – that leads us to affirm the existence of human freedom leads us also to postulate the existence of God as a ground for the synthetic connection between virtue and happiness. But this only serves to widen the gap between this and Leibniz’s principle of sufficient reason. The existence of God is not affirmed by an ontological, cosmological, or physico-theological proof (God does not have in himself his ground of being or existing, nor does the affirmation of his existence result from the ultimate application to finite things of the principle of antecedently determining reason). The existence of God is postulated by virtue of a *ratio* that is not even a *ratio cognoscendi*, but rather a *ratio credendi*, one which human reason generates from its own resources as the only possible response to its inescapable demand for the Highest Good.³⁶

In brief: the thinned-out version of the principle of sufficient reason defended by Kant in his critical philosophy depends on the unity of self-consciousness that, he maintains, on the one hand conditions all knowledge of objects, and on the other hand conditions the ordered unity of the maxims of action under the legislation of the moral law. The destinies of the two notions – unity of self-consciousness, principle of sufficient reason – are from now on linked, for better or for worse: to debunk the one is also to debunk the other.³⁷

But there is another way of challenging Kant’s principle of sufficient reason: in Kant’s argument, as we have seen, the principle in all its aspects is dependent on an Aristotelian predicative logic (the Wolffian version of that logic) which provides discursive thought with its forms and toward which temporal syntheses are guided. To put in question the relevance of this predicative logic and its role in constituting the structure of our perceptual world is undermining the principle of sufficient reason in both of the senses the critical Kant gives it (the logical principle of reason of propositions, the transcendental principle of reason of the temporal order of appearances). Of this principle, there seems then only to remain, at best a modest heuristic principle – for every thing and every event, one must seek an explanation,³⁸ for every action one must seek a reason. And a practical imperative of autonomy: for one’s own actions,

³⁶ Cf. *ibid.*, pp. 124–32. See also *Critique of the Power of Judgment*, §84, AA v, pp. 434–6, trans. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000).

³⁷ As we can see in Schopenhauer: see *On the Fourfold Root of the Principle of Sufficient Reason*.

³⁸ David Wiggins ends up with this modest version of the principle of sufficient reason in his article, “Sufficient reason: a principle in diverse guises, both ancient and modern,” in *Acta Philosophica Fennica*, vol. 61 (1996), pp. 117–32.

one should, as much as can be done, be in a position to hold oneself accountable.

It is therefore tempting to disconnect Kant's argument in the Second Analogy of Experience from Kant's defense of the old principle of sufficient reason, namely from any aspect of the principle inherited from the German rationalists Kant discussed in his pre-critical period. One may then take the Second Analogy to be part of Kant's exposition of the epistemological presuppositions of Newtonian natural science (the option of neo-Kantianism, taken up today by Michael Friedman).³⁹ Or one may take Kant's argument to be an explanation of the necessary conditions of our ordinary perceptual experience, an argument that can be reconstructed without any reference at all to Kant's dubious scholastic heritage (the option of Strawson and his followers).⁴⁰ In this chapter, I have tried to offer a third option. I have tried to show that taking Kant's scholastic heritage seriously does not mean reducing his view to this heritage, but on the contrary enables us to measure the full extent of the reversal he imposed upon it. Following up and reconstructing Kant's argument all the way to its origin in the principle of sufficient reason and the reversal of its proof, then, echoes more familiar themes in today's philosophical concerns: the relation between reasons and causes, and the determination of reasons from the point of view of a self-consciousness that has the capacity to generate from itself the norms of its theoretical and practical activity.⁴¹ How and why the modern developments of these themes differ from Kant's, and what they nevertheless owe to him – it will take more work to try further to clarify these questions.

Postscript

Readers of *KCJ* may notice that in my discussion of Kant's *New Elucidation*, I discussed only three versions of Kant's notion of sufficient reason (*ratio essendi*, *ratio fiendi*, *ratio cognoscendi*) and ended up taking Kant's concept of cause in the Second Analogy, in the critical period, to be a critical version of the pre-critical *ratio fiendi*. In this chapter, I take the Second Analogy to have for its ancestor the Principle of Succession

³⁹ Cf. Cohen, *Kants Theorie der Erfahrung*; Michael Friedman, *Kant and the Exact Sciences* (Cambridge, Mass.: Harvard University Press, 1992).

⁴⁰ Strawson, *Bounds of Sense*. There are of course other options available beyond these most influential ones. I say more about contemporary readings of Kant's Second Analogy below, ch. 6, esp. pp. 170–2.

⁴¹ McDowell, *Mind and World*, esp. pp. 114–17.

expounded in *Nova Dilucidatio*. This principle is itself presented by Kant as a consequence of the principle of sufficient reason understood as a *principium rationis fiendi*. I think this new presentation of the issue is a more precise way of understanding the relation between Kant's pre-critical and critical views. It also has the advantage of making more perspicuous the striking reversal in Kant's method of proof.

KANT ON CAUSALITY: WHAT WAS HE TRYING TO PROVE?

Incredible as it may seem, scholars continue to disagree about what exactly Kant was trying to prove in his Second Analogy of Experience – in that section of the *Critique of Pure Reason* in which he is supposed to provide his response to Hume’s skeptical doubt concerning the concept of cause. Since Kant describes this response as the groundbreaking initial step into his critical system, disagreement about its interpretation is not a situation we can easily be satisfied with.

In recent years, a number of new studies have brought valuable insight into the complexities of Kant’s argument, as well as into the roots of the persisting disagreements about it. All agree on what constitutes the core of Kant’s response to Hume: Kant maintains that some representation of causal relation, rather than resulting – as Hume claimed – from the repeated perception of generically identical successions of events, is presupposed in the very representation of any particular objective succession of states of a thing.¹

¹ Admittedly, succession of events and succession of states of a thing are not the same. Hume’s standard case of succession, in his explanation of our idea of necessary connection, is that of a succession of events: the motion of one billiard ball (event A) followed by the motion of another (event B) (see *Enquiry*, section 4, part 1, p. 29). His question is: how do we acquire the idea that there is a necessary connection between A and B? Kant’s argument in the Second Analogy focuses on changes of states of a thing: a ship’s change of position, a cushion’s change of shape (see A192/B237, A203/B49). He argues, as I shall show in the

Disagreements, however, have recently focused on two main issues: (1) what is meant by the “objective succession” whose representation, according to Kant, presupposes some representation of causal relation? Is it (a) the succession of events or states of affairs as we perceive them in the objects of our ordinary experience – the freezing of water, the moving of a ship, the warming up of a stone? Or is it, rather, (b) the succession of states of affairs as determined in the context of a scientific image of the world – for instance the objective, as opposed to the merely apparent, succession of positions of heavenly bodies? (2) Just what is involved in the concept of cause which, according to the Second Analogy, is presupposed in our representation of objective succession? Is Kant only asserting (a) that in order to think any particular sequence of events or states of affairs as an objective sequence, we have to think its temporal order as in some way constrained, and thus in a loose sense, causally determined – without further asserting that this constraint or “binding down” of the temporal order involves any notion of strictly universal and necessary causal laws? Or does Kant argue, in the Second Analogy, (b) that every event falls under universal and strictly necessary causal laws?

Gerd Buchdahl and Henry Allison have argued in favor of answers (a) to questions (1) and (2) (call this “the Buchdahl/Allison interpretation”). Michael Friedman has argued in favor of answers (b) to both questions (call this “the Friedman interpretation”). The alternative between these two options has more or less dominated recent discussions of the Second Analogy.² It seems, then, that interpreting the objective succession at stake in the Second Analogy as the temporal order of ordinary objects of everyday experience commits one to the view that the causal principle

second section, that such changes of states are perceived only under the presupposition that they are connected to other changes of states according to universal causal laws. A change of states is of course itself an event, so that in the end Kant’s argument does also concern law-governed successions of events. But the perception of succession on which the argument is built is *not* primarily the perception of a succession of events (this will be clear when we consider the argument in the second section). In reading the argument as focusing on successions of states rather than successions of events, I agree with Allison: see Henry Allison, “Causality and causal laws in Kant: a critique of Michael Friedman,” in P. Parrini (ed.), *Kant and Contemporary Epistemology* (Dordrecht: Kluwer, 1994), p. 300. Cf. also Allison, *Kant’s Transcendental Idealism*, p. 248; Strawson, *The Bounds of Sense*, p. 134n; and Longuenesse, *KCJ*, pp. 371–2.

² Cf. Michael Friedman: “Kant and the twentieth century,” in Parrini, *Kant and Contemporary Epistemology*, pp. 27–46, and Allison, “Causality and causal laws in Kant.” Cf. also Friedman, “Causal laws and the foundations of natural science,” in Guyer, *The Cambridge Companion to Kant*, pp. 161–99; Gerd Buchdahl, *Metaphysics and the Philosophy of Science* (Oxford: Blackwell, 1969), pp. 641–5.

argued for in the Second Analogy is a relatively weak one, involving no notion of universal causal laws. On the other hand, opting for a notion of objective temporal order understood as an order determined under mathematical laws (for which the paradigm would be, for Kant, Newtonian universal gravitation) commits one to the view that the causal principle argued for in the Second Analogy is a strong causal principle, asserting not only that for every event there is a cause, but that this cause is determined under universal and strictly necessary causal laws.

The position I shall defend in this chapter breaks the terms of the alternative I have just outlined. For I shall defend answer (a) to question (1), and answer (b) to question (2). I shall maintain that the objective succession Kant is concerned with in the Second Analogy of Experience is the succession of states in the objects of our ordinary perceptual experience; but I shall also maintain that according to Kant, we can perceive such objective changes only under the presupposition that they fall under strictly universal causal laws. I shall, in fact, attribute to Kant not just this epistemological point, but the more radical ontological (transcendental) point that in the world of appearances, all changes of states do fall under strictly universal causal laws.

I am not alone in attributing such an argument to Kant. Strawson has defended the view that the argument of all three Analogies is concerned with the ordinary objects of our perceptual experience; and he has also defended the view that Kant intends the Second Analogy as a proof that all changes of states in such objects are causally necessitated, namely determined under strictly universal causal laws. He has famously endorsed Lovejoy's charge, however, that Kant's argument for this strong conclusion is a "non-sequitur of numbing grossness." And he has argued that rather than Kant's own flawed argument, one could extract from the Second Analogy a valid argument for a weaker conclusion: we can relate our perceptions to the objects they are the perceptions of, only if the changes of states in these objects fall under a unified pattern of reasonably coherent and stable rules.³ Although I agree that Kant's argument in its stronger version does raise problems, I shall argue that it is definitely not the gross non-sequitur Lovejoy and Strawson read into the Second Analogy.

³ Strawson, *Bounds of Sense*, p. 144. For Strawson's denunciation of Kant's "non-sequitur," see *ibid.*, pp. 137–8; cf. Arthur Lovejoy, "On Kant's reply to Hume," *Archiv für Geschichte der Philosophie*, vol. 18c (1906), pp. 380–407; repr. in Moltke S. Gram (ed.), *Kant: Disputed Questions* (Chicago: Chicago University Press, 1967), pp. 284–308.

Paul Guyer too offers an interpretation of the Second Analogy along a pattern similar to the one I defend: he maintains (a) that the Second Analogy is about ordinary objects of our everyday experience, and (b) that in the Second Analogy, Kant argues for some version of universal causal laws. However, Guyer has his own way of weakening Kant's claim: he maintains that Kant is concerned only with the conditions for confirming our beliefs about objective successions. Guyer's Kant argues that we can confirm our belief that an objective change has occurred or is occurring only if we can ascertain that this change falls under known causal laws.⁴ I maintain that Kant wants to make the stronger claim that we perceive any objective change at all only under the presupposition that this change occurs according to universal causal laws.

It is not just with respect to the conclusions I think Kant wants to reach, that I differ from recent commentators of the Second Analogy. Equally importantly, I differ from them in the method I adopt. My method consists in taking Kant at his word when he claims that we can understand the meaning and role of the categories – the fundamental concepts necessarily presupposed, according to Kant, in any representation of objects – if we understand their relation to logical forms of judgment. The logical form corresponding, in Kant's "table of logical forms of judgment," to the category of causality, is the form of hypothetical judgment. I claim that the best way to understand Kant's argument about causality is to follow the guideline provided by this form as conceived by Kant, and its use in empirical knowledge. I follow this guideline in three main steps – thus the three sections of the chapter.

In the first section of the chapter, I consider Kant's formulation of the problem of causality. I argue that Kant's questioning of the causal principle and his analysis of the concept of cause are best approached in the light of his conception of logic, and more particularly in the light of his conception of hypothetical judgments and hypothetical syllogisms.

In the second part of the chapter, I consider Kant's proof of the causal principle in the Second Analogy of Experience. All students of Kant know that this proof is concerned with the conditions of our perception of objective succession. But this aspect of Kant's argument is all too frequently detached from the claimed relation between the causal category and the logical form of hypothetical judgment. In contrast, I shall argue that this relation provides an indispensable foundation for understanding

⁴ Cf. Paul Guyer, *Kant and the Claims of Knowledge* (Cambridge: Cambridge University Press, 1987), p. 252.

Kant's argument on the conditions of time perception. But showing this will also reveal a fundamental difficulty. The argument Kant provides does not seem to support the strong causal principle he claims to prove. I suggest that this apparent discrepancy between Kant's claim and his actual argument in the specific context of the Second Analogy is a primary reason for the persisting disagreements about the meaning of the Second Analogy.

In the third section of the chapter, I argue that in fact Kant does provide an answer to the difficulty I raised. This answer, however, relies not only on the discursive model of thought laid out in the first and second sections of the chapter, but also on Kant's conception of space and time as forms of intuition, as it emerges from the Transcendental Aesthetic and the Transcendental Deduction of the Categories. Since Kant's views on space and time are generally considered to be the most problematic aspect of the first *Critique*, it is no great surprise if the argument of the Analogy seems to come upon its major difficulty at this point. Clarifying the nature of the difficulty is perhaps the most we can hope to do. It would be no small feat, however, if this also helped us resolve some of our disagreements about the nature and import of Kant's proof.

Kant's problem about causality

Let us start with "Hume's problem." Hume distinguished two main aspects in the problem raised by the concept of cause. The first concerns the causal principle itself: what is the source, and what is the justification, of our belief that every event or state of affairs must have a cause? The second concerns our representation of particular causal connections: what are the source and justification of our belief, in any particular case, that one event or state of affairs is the cause of another?⁵

In the *Enquiry*, Hume focuses mainly on the second question.⁶ In the *Treatise of Human Nature*, he argues that in answering the second question

⁵ Cf. David Hume, *A Treatise of Human Nature*, ed. L. A. Selby-Bigge and P. H. Nidditch (Oxford: Clarendon Press, 1993), bk 1, part III, sect. 2, p. 78:

"First, for what reason we pronounce it *necessary*, that every thing whose existence has a beginning, should also have a cause? Second, why we conclude that such particular causes must *necessarily* have such particular effects; and what is the nature of that particular *inference* we draw from the one to the other, and of the *belief* we repose in it?"

⁶ Hume, *Enquiry Concerning Human Understanding*, in *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, ed. L. A. Selby-Bigge, 3rd edn, with text revised and notes by P. H. Nidditch (Oxford: Clarendon Press, 1992), sections 4–7.

one also answers the first. Very briefly, his argument is as follows. No particular perception of an event or state of affairs provides us with any idea of its power to produce another event or state of affairs, or with any idea of a necessary connection between two events or states of affairs. Only the repetition of similar pairs of events or states of affairs following upon one another generates in us a customary association of one with the other, and thus a subjective expectation of perceiving the second upon perceiving the first. Our idea of a necessary connection between two events or states of affairs, then, reflects nothing but our own subjective propensity to expect the second upon perceiving the first, and to form the vivid idea of the first (which amounts to believing that it exists) upon perceiving the second. But because of the natural tendency of our mind to “spread itself upon external objects,”⁷ we tend to attribute to the objects themselves a connection whose idea really reflects only an expectation in us. This, then, is how we form the idea of particular cases of causal connections. Because an event has always been followed by another, we come to believe that every event similar to the first will always be followed by an event similar to the second. But in truth, no amount of evidence provided by our memory and senses is sufficient to justify such a belief.⁸

According to Hume, our belief in the universal causal principle is just a generalization of our particular causal beliefs. Associating to every perceived event or state of affairs the vivified idea (and thus the belief in the existence) of a preceding or succeeding event similar to those that have always preceded or succeeded it, just is entertaining the general belief that “everything that comes into existence must have a cause.” Thus Hume derives our representation of causal connections from the repeated succession of similar events, and our belief in the universal causal principle from the generalization of our belief in particular causal connections.⁹

⁷ Hume, *Treatise*, p. 167.

⁸ *Treatise*, bk I, part III, 2–14; *Enquiry*, sections 4–7.

⁹ See *Treatise*, bk I, part III, section 8, pp. 104–5; section 14, p. 172. One may wonder whether Hume actually accounts for the universal principle as he has first introduced it (i.e. the principle admitted both in metaphysics and by common understanding: “every beginning of existence must have a cause”), or rather gives an explanation of some broader principle such as: “every beginning of existence must have a cause and an effect.” Many of Hume’s formulations, throughout the *Enquiry* and the *Treatise*, do not give precedence to cause over effect in the ideas imagination naturally associates with any given event or state of affairs. The privilege given to the principle as stated can probably be explained more thoroughly by looking into Hume’s explanation of what he calls “the world of judgment” (*Treatise*, p. 74).

In the Introduction to the *Critique of Pure Reason*, Kant states that accepting Hume's account would amount to giving up the very content of the concept of cause:

[In the proposition: "every alteration must have a cause"], the very concept of a cause so obviously contains the concept of a necessity of connection with an effect and a strict universality of the rule that it would be entirely lost if one sought, as Hume did, to derive it from a frequent association of that which happens with that which precedes and a habit (thus a merely subjective necessity) of connecting representations arising from that association. (B5)

The charge may strike us as bizarre: after all, as I just explained, the whole point of Hume's psychological derivation of the concept of cause is to account for the idea of necessary connection "contained in the concept of cause," and to explain how we tend to inflate mere observed regularities into "strictly universal rules." Kant is of course aware of this. What we must take him to mean, then, is that accepting Hume's account of precisely these features would be giving up the concept of cause altogether, because it would mean that as far as objects are concerned, our idea of causal relation can be reduced to the idea of a non-causal relation: repeated succession of similar events or states of affairs. The ideas of "necessity of connection" and "universality of the rule" would remain grounded only in the subjective propensities of our mind. Now, one way to reject such a reduction is to show that Hume in fact does not give an accurate account of what we actually think when we think "the necessity of connection with an effect" and the "strict universality of the rule" contained in the concept of cause. This is indeed what Kant will set out to show. But what does he himself mean by the "strict universality of the rule" contained in the concept of cause?

I suggest that we find the beginning of an answer to this question in the preface to the *Prolegomena to Any Future Metaphysics*. There Kant credits Hume with having challenged our reasoning capacity to explain "by what right she thinks anything could be so constituted that if that something be posited, something else also must necessarily be posited; for this is the meaning of the concept of cause."¹⁰ This question concerns the second aspect of the problem of causality as defined earlier, namely,

cf. *Enquiry*, p. 26) namely our belief in the existence of independently existing objects. My purpose here is not to submit Hume's account to critical scrutiny, but only to lay out its overall structure insofar as it should help clarify Kant's own formulation of "Hume's problem."

¹⁰ *Prolegomena*, AAiv, p. 257.

what is the justification of any particular statement of causal connection?¹¹ However, the terms in which Kant formulates this question are quite bizarre, and certainly not Humean: to say that something is the cause of something else is to say that “if this something is posited, then something else must also necessarily be posited.” It is the word “posited” that intrigues me here. What Kant credits Hume with, is perhaps Hume’s problem. But this problem is not stated in Hume’s language.

The language is actually that of the hypothetical syllogism in *modus ponens* as defined in the logic textbooks of the time. Indeed, Kant’s phrasing (“if something is posited, something else also must be posited”) reproduces, almost word for word, Christian Wolff’s description of the inference in *modus ponens* in a hypothetical syllogism:

§407: If, in a hypothetical syllogism, the antecedent is posited, the consequent must also be posited [*si in syllogismo hypothetico antecedens ponitur, ponendum quoque est consequens*].

§408: The antecedent being posited in the minor, the consequent should also be posited [*posito antecedente in minore, ponendum quoque est consequens*].¹²

In a hypothetical judgment (“If A is B, then C is D”), the “if” clause is called the antecedent, the “then” clause is called the *consequent*. In a hypothetical syllogism whose major premise is “If A is B, then C is D,” the antecedent of the hypothetical judgment being posited, i.e. asserted, in the minor premise (“A is B”), then the consequent should also be posited, i.e. asserted, in the conclusion (“so, C is D”).

By presenting the problem of causality in these terms, Kant brings attention to the fact that the problem of how we can think a particular causal connection turns out to be the following: how can the relation between two empirical states of affairs be such that the first can be thought under the antecedent, the second under the consequent of a hypothetical judgment that functions as the major premise in a syllogism in *modus ponens*, such that “the antecedent being posited (as the minor premise), the consequent must be posited (as the conclusion)”)? If this is correct, the “strict universality of a rule” thought in the concept of cause is the strict universality of the hypothetical judgment (“If A is B, then C is D”).

¹¹ See above, pp. 147–8 and n. 5.

¹² Christian Wolff, *Philosophia rationalis sive Logica*. I do not mean that Kant’s “universality of the rule” is the universality of the rule of *modus ponens* itself. The “universality of the rule” is the universality of the hypothetical judgment, which is the major premise of the hypothetical syllogism in *modus ponens*. I shall say more on this in a moment.

that we implicitly presuppose as a premise whenever we represent two particular states of affairs “A is B” and “C is D” in such a way that “A is B” being posited, “C is D” should also be posited.¹³

One might wonder what the question thus reformulated still has in common with “Hume’s problem.” But Hume too moved from the question of how we think the necessary connection between two events to the question of how we make the representation of a mere repetition of similar sequences of events into the representation of a strictly universal rule or law, in such a way that all future events similar to the one identified as a cause should be followed by events similar to the one identified as the effect. What is interesting about Kant’s formulation is that from the outset it collapses together the two steps in Hume’s analysis of the problem of particular causal connection. “If something is posited, something else should be posited” can mean both that the second “something” necessarily comes to existence if the first does, and that they are, in effect, respectively thought under the antecedent and under the consequent of a strictly universal rule. Hume argued, of course, that not reason, but imagination (the natural propensity of the mind to form the enlivened idea of the second upon perceiving the first) is the author of the “strict universality” of the rule. Kant wants to argue that understanding and reason are at work in universalizing the connection between what precedes and what follows. Presenting the problem in the terms borrowed from Wolff’s hypothetical syllogism helps to bring this out.

But what might Kant mean by the “strict universality” of a hypothetical judgment? When Kant explains the quantity of judgments, he always gives examples of categorical judgments – all, some, one A are/is B. What could be the universality of a hypothetical judgment – if A is B, then C is D? Before considering this problem, we need to say more about the hypothetical form itself. Kant’s hypothetical judgment is quite different from our

¹³ In addition to the striking similarity between Wolff’s formulation of the rule of *modus ponens* and Kant’s presentation of “Hume’s problem” in the preface to the *Prolegomena*, we have other reasons to suppose that Kant had the inference in *modus ponens* in mind. Already in his pre-critical Reflections on Metaphysics he characterized the problem of the causal connection in terms of what he called a synthetic *respectus rationis ponentis* (see *Reflexion* 3753, AAxxvii, p. 283). And of course in the first *Critique* and in the *Prolegomena* he relates the category of cause to the form of hypothetical judgment. In the *Lectures on Metaphysics* contemporary with the *Critique*, he gives a more detailed exposition of the relation between the cause and the antecedent, the effect and the consequent of a hypothetical judgment (see *Metaphysik Volkmann*, AAxxviii-1, p. 397). For more on this point see above, ch. 5, pp. 129–31.

material conditional, in two respects: the nature of the connective, the nature of the propositions connected. I shall consider each in turn.

First, the connective. In our material conditional, the meaning of the connective is given by its truth table: the conditional (“if p , then q ”) is false just in case its antecedent is true and its consequent false; it is true in all other cases. Not so for the connective “if . . . then” of the hypothetical judgment, which Kant calls *Konsequenz* (not to be confused with the “then . . .” clause, called the consequent in English, *die Folge* in German). The truth value of the hypothetical judgment does not depend on the truth value of its components, but on the truth of the *Konsequenz* itself: the hypothetical judgment is true just in case there is between antecedent and consequent a relation of *Konsequenz*, i.e. a relation of ground to consequence. Here is what Kant writes in the *Jäsche Logic*:

The *matter* of hypothetical judgments consists of two judgments that are connected with one another as ground and consequence. One of these judgments, which contains the ground, is the *antecedent* (*antecedens, prius*), the other, which is related to it as consequence, is the *consequent* (*consequens, posterius*), and the *representation of this kind of connection of two judgments to one another for the unity of consciousness is called the consequentia* [my emphasis] which constitutes the *form* of hypothetical judgments [. . .]

In [a hypothetical judgment] I can . . . connect two false judgments with one another, for there *what matters is only the correctness of the connection – the form of the consequentia, on which the logical truth of these judgments rests.*¹⁴

Note Kant says that antecedent and consequent can both be false: namely, in asserting the hypothetical, we assert neither the antecedent nor the consequent. We only assert that there is a relation of consequence between them. So, they can both be false, or they can both be true. Or perhaps even (as in our material conditional) the antecedent can be false and the consequent true, without this putting into question the truth of the *Konsequenz*. But the important difference between Kant’s hypothetical judgment and our material conditional is that in the former, the meaning of the connective is not fixed by its truth conditions, but on the contrary the truth conditions are fixed by the meaning of the connective: because the meaning of “if . . . then” in a hypothetical judgment is that there is a relation of *Konsequenz* between antecedent and consequent, the hypothetical judgment is true only if its antecedent is false, or if its antecedent and

¹⁴ Immanuel Kant, *Jäsche Logic*, §25, AA1x, pp. 105–6.

consequent are both true. And of course these are necessary, but not sufficient conditions. For these conditions could be satisfied and there still be no relation of *Konsequenz* at all between antecedent and consequent. For instance: “If my mother is French, New York is in America”; “If the moon is square, I can fly”; “If the moon is square, New York is in America.” All three hypothetical judgments are false, because there is no *Konsequenz* between antecedent and consequent.

Now, one may wonder, then, what Kant’s form of hypothetical judgment has at all in common with what we would call a logical form. Answer: what makes the *Konsequenz* a logical form is that it grounds the two forms of inference: *modus ponens*, *modus tollens*. For because of the meaning of the *Konsequenz*, whoever asserts the antecedent is thereby committed to asserting the consequent (*modus ponens*); and whoever denies the consequent is thereby committed to denying the antecedent (*modus tollens*). Note that these two forms of inference are just those that the meaning of the material conditional allows. But we see here the same asymmetry as in the determination of the truth of the propositions themselves: just as the truth of the material conditional depends on the truth of antecedent and consequent, similarly the *modus tollens* and *modus ponens* are just rules of separation stemming from the truth conditions of the conditional: if the conditional is true and its antecedent is true, then the consequent is true; if the conditional is true and the consequent is false, then the antecedent is false. For the hypothetical on the other hand, the form of inference is grounded not in the truth conditions, but in the meaning of the *Konsequenz*. Nevertheless, the forms of inference allowed are the same in both cases.

Consider now the propositions connected by the *Konsequenz* in a hypothetical judgment. For Kant, the primary model for any judgment is predication: A is B (subject–copula–predicate). Hypothetical judgments themselves are to be understood as asserting a relation between predications. More specifically, according to Kant (who here too takes after Wolff) what a hypothetical judgment asserts is that the predication expressed by the consequent can be asserted only under the condition that the predication expressed in the antecedent be asserted. In the *Jäsche Logic*, Kant writes:

There is an essential difference between the two propositions: all bodies are divisible, and: if all bodies are composite, then they are divisible. In the first proposition I assert the state of affairs [*die Sache*] directly; in the second, I assert it only under a condition expressed problematically.¹⁵

¹⁵ *Ibid.*, p. 106.

In the hypothetical judgment, the predication expressed by the consequent is asserted only under the condition of the predication expressed by the antecedent. This is why, again, in a hypothetical syllogism, the antecedent being posited, the consequent should also be posited.

Kant says of hypothetical syllogisms that they are not really syllogisms, because in them there is no middle term: one simply converts the antecedent from a problematic to an assertoric proposition, and thus provides the ground for asserting the consequent in the conclusion. As Kant explains:

A hypothetical syllogism is one that has a hypothetical proposition for its major premise. It consists in two propositions: 1- an antecedent and 2- a consequent, and it is achieved either through *modus ponens* or through *modus tollens*.

Note: Hypothetical syllogisms thus have no middle term, but in them the *Konsequenz* of a proposition from another proposition is shown. – Namely, the major premise expresses the *Konsequenz* of two propositions, of which the first is a premise, the second is a conclusion. The minor premise is a transformation of the problematic condition into a categorical proposition.¹⁶

So, to take up Kant's example of hypothetical judgment above, a hypothetical syllogism formed from such a judgment would be: "If bodies are composite, then they are divisible; bodies are composite; so, they are divisible." One might want to make explicit the fact that what is asserted in the consequent is asserted of all bodies, together with the Wolffian idea of an added condition, and write: "All bodies, if composite, are divisible; all bodies are composite; so, all bodies are divisible."

But there can be more complex cases: cases that combine features of categorical and hypothetical syllogisms. In a categorical syllogism, there is a middle term by the mediation of which, in the conclusion, a particular class of objects is subsumed under the predicate of the major premise. Now, consider the syllogism: "All stones, if lit by the sun, get warm; the stones along the river are lit by the sun; therefore, they get warm." Such a syllogism combines features of a categorical (subsumption of the subject of the minor premise under the subject, and thus under the predicate, of the major premise) and of the hypothetical (assertion in the minor premise of the antecedent of the major premise).

I suggest that when Kant talks of the "strict universality of a rule" contained in the concept of cause, what he has in mind is precisely this

¹⁶ *Jäsche Logic*, §75, AA1x, p. 129.

kind of mixed premise. And the “positing” of something that results in the “positing” of something else similarly has the features of both the categorical subsumption of an instance and the hypothetical assertion of the antecedent. In other words, to think a causal connection between the stone’s being lit by the sun and the stone’s becoming hot is to think that the proposition “this stone is lit by the sun” being posited, the proposition “this stone is becoming hot” should be posited, which amounts to thinking the first as an instantiation of the antecedent, the second as an instantiation of the consequent, in the (implicit) strictly universal rule: all stones, if lit by the sun, get warm. This is why Kant says that the concept of cause (the sun’s being by its light the cause of the stone’s getting hot) contains “the strict universality of the rule.”

Three caveats: first of all, what we are talking about in a causal judgment are empirical states of affairs. Kant’s question, like Hume’s, is how a necessary connection can be thought to exist between two distinct states of affairs which we know only empirically (matters of fact). Second, the relation between antecedent and consequent has to be synthetic: if asserting the predicate of the consequent follows analytically from asserting the antecedent, then we do not have a causal connection. “All bodies, if composite, are divisible”, is such an example. Third, if the connection is itself an empirical generalization, we do not have a causal connection. For instance, “All stones in this garden, if the sun shines on them, are warm (I’ve checked).” This is not a causal connection.

To sum up, for the hypothetical to express a causal connection, it has to be the case (1) that the states of affairs connected in the judgment are empirical, (2) that the connection is synthetic, (3) that it has strict universality. Because only if I can presuppose a premise with strict universality can I state, given one case (the sun shines of the stone) that this case being posited, the consequent must be posited: the stone gets warm. In other words, to think a causal connection between two states of affairs is to think the one as the posited antecedent (in the minor premise) the other as the posited consequent (in the conclusion) of a strictly universal rule.

In Kant’s terms, then, the difficulty inherent in the concept of cause may be reduced to the following: how can a hypothetical judgment be universally and necessarily true although it is not analytically true (its consequent is not analytically contained in its antecedent)? When trying to ground the “strict universality of the rule” contained in the concept of cause, Kant is on the look-out for hypothetical judgments in which the connection of antecedent and consequent is as strictly universal and necessary as is the analytical connection of concepts or propositions; he

is looking for a way to move from the “positing” of the antecedent to the “positing” of its consequent by a *modus ponens* which is as rigorously grounded as a *modus ponens* formed from an analytically true proposition, even though the connection contained in the supposed premise is in fact synthetic, and its components are wholly empirical. To say that there is a causal relation between the stone’s being lit by the sun and its being warm is to say that the if . . . then connection between these two states is as necessarily and universally true as the if . . . then connection between perfect justice and the punishment of the wicked, although in the case of the stone’s being lit and its getting warm I have only repeated observation to vouch for my statement of an if . . . then connection.

The transition from a judgment which merely recounts repeated observation to a causal judgment (which amounts to claiming universal validity and necessity for the rule: “If a stone is lit by the sun, then it gets warm”) is what Kant calls, in the *Prolegomena*, a transition from a mere “judgment of perception” to a “judgment of experience.” A judgment of perception, he says, holds only “for me, and in the present state of my perception.” A judgment of experience, if true, is true “for all, and at all times.” This is because what it expresses is not just a repeated combination of perceived events (I have repeatedly experienced that when the stone was lit up by the sun, it became warm), but a connection in the objects themselves such that if sun shines on the stone, the stone gets warm.¹⁷ But what makes it possible to assert such a connection? What allows the transition from the mere statement of a repeatedly observed occurrence (judgment of perception) to a hypothetical judgment for which we claim the “strict universality of a rule” (judgment of experience)? Kant’s response is that we presuppose the necessary truth of another judgment, prior to both the judgment of perception and the judgment of experience. We presuppose the truth of a judgment that states that appearances, the objects of our perception and experience, are “in themselves determined” with respect to the logical form of our hypothetical judgment. We presuppose, in other words, that appearances are in themselves, as empirical objects, connected

¹⁷ Cf. the striking manner in which Kant defines the role of the categories in *Prolegomena* §21–a, AAiv, p. 304:

“The judgment of experience must add to the sensible intuition and its logical connection in a judgment (according to which it has been made universal by comparison) something that determines the synthetic judgment as necessary and thereby as universal; and this can be nothing other than the concept which represents the intuition as *in itself determined with respect to one form of judgment rather than another* [my emphasis]: that is to say, a concept of that synthetic unity of intuitions which can be represented by a given logical function of judgment.”

by a chain of causal connections, or we presuppose the universal validity of the causal principle. Because we make such a presupposition, we allow ourselves, upon repeated observation of similar events, to move from such repeated observation to a causal judgment (a hypothetical for which we claim the “strict universality of a rule”).

What justified such a presupposition? For an answer to this question, in the *Prolegomena* Kant merely refers us to the *Critique of Pure Reason*.¹⁸ Before we consider this answer, we can already note that the structure of Kant’s response to “Hume’s problem” turns out to be the exact reverse of Hume’s own. Hume derived the universal principle from the particular cases of causal connections and the particular cases of causal connection from repeated successions of similar events. Kant says that we derive a causal connection from any given repetition of similar events because we already have the universal causal principle.

What we need from the *Critique*, then, are answers to three main questions. First, is it the case that we presuppose the truth of the causal principle? Second, supposing we do presuppose its truth, is it indeed true, i.e. do we have the right to presuppose its truth? (This is, in effect, the *quid juris* question of the *Critique*: by what right do we make use, in empirical knowledge, of concepts such as that of necessary connection? [cf.A84/B116].) Third, supposing we do presuppose the truth of the causal principle, and supposing the principle is indeed true, how does this general presupposition warrant in any particular case the transition from observing a mere regularity (what Kant calls a “judgment of perception”) to asserting a causal connection, which we claim holds “for all, and at all times” because it holds of the (empirical) objects themselves, and is thus what Kant calls a “judgment of experience”?¹⁹

In order to see what answers, if any, Kant offers to these questions, I now turn to his argument in the Second Analogy of Experience.

Causality and perception of objective temporal succession

In the first edition of the *Critique*, Kant gives the following formulation for the Second Analogy of Experience: “Everything that happens (begins to be) presupposes something which it follows in accordance

¹⁸ See the footnote to §22 of the *Prolegomena* (AAiv, p. 299) where Kant refers his reader to A137ff, i.e. the beginning of the chapter: On the Schematism of Pure Concepts of the Understanding.

¹⁹ Cf. *Prolegomena*, §18, AAiv, pp. 297–8.

with a rule” (A18g).²⁰ Stressing as it does the notion of a rule, this formulation is closely related to the logical unpacking of the concept of cause I have just laid out. Indeed, I intend to show that this logical unpacking helps clarify the terms and method of Kant’s proof.

As anybody who has battled with the first *Critique* knows, Kant provides in the Second Analogy not one, but five different expositions of his proof of the causal principle, each of them quite tortuous. All of them arguably share the following steps:

- 1 Our apprehension is always successive (premise).
- 2 This by itself does not tell us whether the succession of perceptions in our apprehension is the perception of an objective succession (a change of objective states) (premise).
- 3 We experience the succession in our apprehension as the perception of an objective succession just in case we consider the subjective succession as order determinate (i.e. we know that we could not reverse the order of our perceptions and perceive A after, instead of before perceiving B; or perhaps better, we are aware, while perceiving B, that should we at that instant return our gaze to the point where we perceived A, we would not perceive A there)²¹ (premise).
- 4 We consider the subjective succession $\langle A, B \rangle$ as order determinate just in case, relating it to an object, we recognize a change of state in the object, which means that we presuppose that $\langle A, B \rangle$ follows from a preceding objective state according to a rule (premise).

²⁰ In the second edition, the formulation of the Second Analogy is: “All alterations occur in accordance with the law of connection of cause and effect” (B232). This formulation is closer to the one I quoted earlier from the introduction (also in B). The B formulation is interesting in that it stresses Kant’s equation of an event with the alteration of a (relatively) permanent thing, and thus the connection of the Second Analogy with the First. It also emphasizes the notion of a law rather than that of a rule, and thus the necessity of the causal connection. But as I say in the main text, in my view the superiority of the A edition’s formulation lies in its staying closer to the discursive model from which Kant derives the meaning of the concept of cause.

²¹ For an explanation of the correction I propose after “perhaps better,” see my comment on premise 3 below, and n. 26.

One may wonder what work premises (1) and (2) do in the argument, since according to my analysis, (5) follows from (3) and (4), without any reference to (1) and (2). Their only role, in the pattern I am laying out here, is to prepare the way for (3), although (3) does not strictly speaking follow logically from them. All one can say is that once one has recognized that perceptions in our apprehension are always successive, and that one can draw from this mere succession in apprehension no instruction at all as to the objective order of things, then one is prepared for the statements of (3) and (4), from which (5) follows. Thanks to Colin Marshall for pressing me on this point.

- 5 Therefore, we perceive a succession as an objective succession (a change of states in an object) just in case we presuppose a preceding state upon which it follows according to a rule (from [3], [4]).
- 6 Therefore, every objective succession (every event) presupposes something upon which it follows according to a rule (from [5]).²²

I shall be relatively brief on premises (1), (2), and (3) of my outline, which do not strike me as extremely problematic. I shall spend more time on premise (4), for which the formulation I have proposed is both complex and controversial. And of course there is an obvious difficulty in the move from (5) to (6) (which respectively answer the first and second questions we needed the *Critique* to answer – see the concluding remarks of section 1 above: do we presuppose “something which what happens follows, according to a rule”? Yes, if the argument is sound. Does it mean that what happens “presupposes something which it follows according to a rule”? We need to see if Kant gives an argument for this additional move.)

Premises (1) and (2)

They are, in a peculiar sense, phenomenological descriptions of our perceptual experience: whatever we perceive, we perceive successively. Even a permanent, unchanging object or realm of objects, we perceive by means of a continuous succession of perceptual states. *A fortiori*, apprehending or directing our attention to different parts of an unchanging object, or to different objects, or to successively appearing and disappearing states of one object, is itself always successive. In his Analogies of Experience, Kant gives examples for each of these three cases: the first (directing our attention to different parts of one object) is exemplified by the perception of a house, in which we successively apprehend the bottom part and then the top part, or the top part and

²² The obvious difficulty in the transition from (5) to (6) is that Kant seems to move blithely from an epistemic point (“in experiencing objective succession, *we* presuppose”) to an ontological/transcendental point (“objective succession itself presupposes”). A possible ground for the move might be an implicit reliance on the Transcendental Deduction: “The conditions of possibility of experience are the conditions of possibility of the object of experience” (A111, A158/B197). But I shall also suggest that there is, within the argument of the Second Analogy itself, a move that is meant to ground the transition from (5) to (6), and which essentially repeats the argument which, in the Transcendental Deduction, supported the view that the categories are not just concepts according to which necessarily, we think about objects, but concepts that universally represent features of the objects themselves. More on this below, especially in the third section of this chapter.

then the bottom part, the right side and then the left side, or the left side and then the right side, and so on; the second (directing our attention to different coexisting objects) is exemplified by perceiving the earth around us and then the moon, the moon and then the earth; the third (perceiving different states of one and the same object) is exemplified by the famous example of perceiving successive positions of a ship sailing down a river, which I shall analyze in some detail in a moment.²³

These examples are meant to show not only that our apprehension is successive, but also that, notwithstanding this successive character of our apprehension, we do distinguish, without even having to reason about it or to reflect upon it, an objective succession (in the case of the ship) from a succession which is merely subjective and for which the objective temporal relation is one of simultaneity (in the case of the parts of the house or in the case of the moon and the earth). In fact, what requires some reflection in order for us to become aware of it is the successive character of the subjective apprehension: as I said, we quite naturally and without any reflection at all perceive the parts of the house, or the moon and the earth, as simultaneous, without being aware that our apprehension of them is successive. This makes premises (1) and (2) rather surprising, but nonetheless, upon reflection, acceptable.²⁴

²³ For Kant's analysis of these examples, see A190–1/B235–6, A192–3/B237–8, B257.

²⁴ A standard objection to Kant's reasoning here is that in fact, contrary to Kant's claim, the manifold of representations is not at all always successive. See for instance Lewis White Beck, *Essays on Kant and Hume* (New Haven: Yale University Press, 1978), p. 144:

"Kant assumes that the manifold of representations is always successive. This is certainly wrong. When I open my eyes I do not scan the visual field as if my eyes or my attention worked like the electron ejector in a television tube, aiming first at one point and then at an adjacent point. But as a consequence of his sensational atomism, Kant assumes that my apprehension does work in this way."

Beck adds, however, that this error does not destroy Kant's argument altogether. For this argument to be relevant, says Beck, it is sufficient that the temporal order of our perceptions and that of objective states be sometimes different. "It is the *difference in temporal orders*, and not the putatively *necessary successivity of representations*, which generates the problem of the Analogies." However, I do not think that Kant makes the error Beck attributes to him. Kant certainly does admit that an object or a scene can be perceived *uno intuitu*. What matters is that we acquire detailed awareness of each of its elements only by successively apprehending it. And when the latter occurs, our awareness of objective succession, as opposed to objective simultaneity, is an (implicit) awareness of rule-governed change, as opposed to rule-governed coexistence (as the Third Analogy will establish). On Kant's analysis of our awareness of objective temporal order as an awareness of the rule-governed character of our perceptions, see below my analysis of the third and fourth premises.

*Premise (3): objective succession and order-determinateness
of the subjective succession*

Premise (3) says that we perceive a succession as objective (as a succession of states in the object) just in case we consider the subjective succession as order-determinate, i.e. just in case we are aware that we could not reverse the subjective order of our apprehension and perceive A again after having perceived B. Of course, as most commentators of Kant have noticed, this does not mean that the objective succession itself cannot be reversed. When I perceive that a ship successively occupies positions p_1 , p_2 , and p_3 (as opposed to my successively perceiving different, coexisting ships at p_1 , p_2 , p_3), I am aware that the ship could reverse its movement and go back from p_3 to p_2 , and from p_2 to p_1 . But in the present circumstances, my perception of the scenery could not be reversed. I could not direct my perception back to p_2 or to p_1 and expect to see the ship. Whereas if I interpret what I apprehend successively as a perception of three coexisting ships, I do expect the succession of my perceptions to be repeatable in the reverse order. I would see the very same ships if I directed my glance back where I directed it a moment ago (unless, again, the ships moved; but even then I would at least expect to see them somewhere).²⁵

*Premise (4): order-determinateness of the subjective succession, relation
to an object, supposition of a rule*

Premise 4, as I have formulated it, says: “We consider the subjective succession as order-determinate just in case, relating it to an object, we recognize a change of states, which means that we presuppose that it follows from a preceding state according to a rule.”

²⁵ A more disturbing objection might be that raised by the perception of time-reversible processes, like the movement of a pendulum. How could we possibly think, in this case, that we could not perceive A (position 1 of the pendulum) after perceiving B (position 2 of the pendulum)? It is precisely for such a case that I proposed a corrected version of premise 3 above: we are aware, while perceiving B, that should we at that instant return our gaze to the point where we perceived A, we would not perceive A there. This alternative formulation also has the advantage of stressing the role of imagination: we have to use our imagination to bring to mind what we would perceive at a point we are not presently perceiving. Of course, even to this, one might object that we just “see” the pendulum in its successive positions. But there I would say that Kant’s arguments are first directed at cases of interrupted perception. Uninterrupted perception itself is interpreted in the light of our ability to unify interrupted perceptions. This is how we constitute for ourselves representations of unified and coherent realms of objects and their temporal relations.

Packed into this one premise are three conditions for interpreting the subjective succession as order-determinate: (a) we have to relate it to an object; (b) relating it to an object, we have to recognize a change of states of the object; (c) recognizing a change of states means presupposing that it follows from a preceding state according to a rule. I now want to consider these three conditions one by one.

(a) What makes us consider, or interpret, the subjective succession as order-determinate is that we relate it to an object. Or more precisely, what makes us so perceive it is that we implement the mental activity of relating our subjective apprehension to an object it is the apprehension of. Now, against the argument so construed one might want to observe that premises (3) and (4) seem suspiciously circular. Premise (3) says that to interpret the subjective succession as also objective is to interpret it as order-determinate. But premise (4) says that what triggers the interpretation of the subjective succession as order-determinate is that we relate our perceptions to an object. To perceive as objective is to perceive as order-determinate; but one perceives as order-determinate only if one relates to an object. Actually, this is not circular because “perceiving as objective” (in premise [3]) and “relating to an object” (in premise [4]) are not the same. Relating the subjective succession to an object (premise [4]) might result in considering it as the perception of an objective coexistence, and thus as a merely subjective succession, a succession merely in apprehension (in which case premise [3] would not be satisfied). This is so when, relating subjective succession to an object, I recognize that what I apprehend successively are really three generically identical ships which exist at the same time, and not three objectively successive states (different positions in space) of one ship. Similarly, to take Kant’s own examples, relating the subjective succession of my perceptions to an object may result in my recognizing that what I am perceiving are the objectively coexisting parts of one house, or two heavenly bodies existing at the same time (not one body which has moved from one position in space to another). So, Kant’s point is that the mental activity of relating perceptions to objects they are perceptions of, just is what generates (without our even needing explicitly to reason about it) our representation of objective correlations in time. And this in turn gives its character of irreversibility or reversibility to the subjective succession of perceptions in our apprehension. In fact, we have quite familiar examples of what happens when this activity does not take place: in day-dreaming we may let our eyes wander from one object to the next, let changes in the objects we are taking in occur, without discerning the occurrence of any

objective event or recognizing any coexistence of objects or, for that matter, recognizing any persisting object at all.

An interesting aspect of Kant's argument is that it reverses the dependence relation between the features of our perceptions and our relating these perceptions to objects we take them to be the perceptions of, found in seventeenth- and eighteenth-century theory of ideas. For Descartes no less than for Locke, Berkeley, or Hume, perceiving external objects is a matter of interpreting features of our ideas and their combinations. The four authors differ, of course, in the tools they admit we have at our disposal for interpreting these features. Therefore they also differ in the kinds of inferences they allow concerning the existence and objective properties of external objects. But for Kant, the features of our ideas (representations), and especially the modal characteristics of their temporal relations, depend themselves upon our mental acts of relating them to objects they are the perceptions of. We take the succession of our representations to be order-indeterminate or order-determinate depending on whether we are led to interpret them as representing an objective *simultaneity* or an objective *succession*. So the order we introduce into the subjective succession of our representations depends on how we interpret the objective order we take them to be the representations of. Thus Kant writes:

In the previous example of a house my perceptions could have begun at its rooftop and ended at the ground, but could also have begun below and ended above; likewise I could have apprehended the manifold of intuition from the right or from the left. In the series of perceptions there was therefore no determinate order that made it necessary when I had to begin in the apprehension in order to combine the manifold empirically. But this rule is always to be found in the perception of that which happens, and it makes the order of perceptions that follow one another (in the apprehension of this appearance) *necessary*.

In our case I must therefore *derive the subjective succession of apprehension from the objective succession of appearances* [my emphasis], for otherwise the former would be entirely undetermined and no appearance would be distinguished from any other. (A192-3/B237-8)²⁶

Or again:

If we investigate what new characteristic is given to our representations by the relation to an object, and what is the dignity that they thereby

²⁶ Cf. premise (4₁) (premise [4] in the first exposition of the proof) quoted in the appendix below.

receive, we find that it does nothing beyond making the combination of representations necessary in a certain way, and subjecting them to a rule, and conversely, that objective significance is conferred on our representations only insofar as a certain order in their temporal relation is necessary. (A197/B242–3)²⁷

Here the seemingly circular aspect of Kant's argument, mentioned above, is quite visible. Relating our representations to an object confers upon our representations a character which they would not otherwise have (their temporal order-determinateness, or on the contrary their order-indifference). But this character is what makes them representations of objective succession or, on the contrary, of objective coexistence.

Strawson, following Lovejoy, famously characterized Kant's argument in the Second Analogy as a "non-sequitur of numbing grossness."²⁸ This damning statement rests, I think, on a misunderstanding of Kant's meaning when he says that "in [the perception of an event] we must derive the subjective succession of apprehension from the objective succession of appearances." Strawson understands Kant to be saying that we interpret the subjective succession in our apprehension as irreversible when we think that it is causally determined by an objective succession. The subjective succession (say a, b) is then thought to be necessary in that its order is thought to be constrained by the order of the objective states of affairs (say A, B). This is a reasonable thing to say, Strawson comments. But from this Kant then proceeds to his astoundingly gross non-sequitur. He claims not only that the subjective succession is necessary (being causally determined by the objective succession); but that the objective succession which determines it is itself necessary as well. Thus every necessary order of the subjective succession is the perception of a necessary, i.e. causally determined, objective succession.²⁹ This certainly is a resounding non-sequitur. But in fact, if I am right in the analysis I have proposed, this causal/representational account of perception plays no role in Kant's argument. In fact, making use of such an account for the proof of the causal principle would be an even grosser non-sequitur than the one Strawson denounces: for the purpose of proving the universal applicability of the concept of cause it would make use of the very concept whose applicability is in

²⁷ This passage belongs to the transition between the second and third exposition of the argument, where Kant explains that to understand his argument we need to reflect on what we mean by an object: see appendix to this chapter, explanation of ¶11.

²⁸ Strawson, *Bounds of Sense*, p. 137.

²⁹ *Ibid.*, pp. 137–8.

question. But, as I pointed out earlier, Kant's account of perception here is not causal, but phenomenological, in an original sense. Kant asks: what is it about our perception that makes a subjective succession the perception of an objective succession? He responds in the two steps (3) and (4): what makes our successive perception in apprehension the perception of an objective succession is the awareness of its temporal order-determinateness; what generates the awareness of its temporal order-determinateness is the fact that we intentionally relate it to an object.

But how does this happen? Why should relating our representations to an object generate an awareness of its order-determinateness, and why should this awareness warrant perception of an objective succession? This is what the second and third conditions stated in premise (4) are meant to explain. I now consider those two conditions.

(b) and (c) What we want to explain is why relating successively apprehended perceptions to an object should generate a representation of order-determinateness (in the case where the subjective succession is interpreted as the perception of an objective succession) or of order-indifference (in the case where the subjective succession is interpreted as the perception of simultaneously existing objects or states of objects). I shall consider only the first case, which is the one the Second Analogy is about. Why does relating perceptions to an object generate the order-determinateness of the subjective succession in the case where it is the representation of an objective succession?

To relate perceptions to an object of which they are the representation, is to recognize an object under a concept.³⁰ I perceive patches of grey out there, in a vaguely rectangular shape. I relate these perceived patches to an object when I recognize a tower: for instance, the tower of the science building in the University of Paris. Now, recognizing an object under a concept is either recognizing it under "permanent" characters, characters it could not cease to have without ceasing to be the kind of object I identified it as being, or recognizing it under changing characters: characters it can acquire or lose without ceasing to be the kind of object it is. The tower could possibly be painted bright red by

³⁰ Kant argued for this point in the Transcendental Deduction of the Categories; see A103/B137. This does not mean that all object-related representations presuppose a concept. Intuitions are also representations we relate to objects (cf. A320/B377). But intuitions ("representations that relate immediately to the object and are singular") (A320/B377, cf. *Jäsche Logic*, §1), left to themselves, are "blind" (A52/B76). Knowing what we intuit, and re-identifying objects, i.e. recognizing them as persisting through time, is possible only if we recognize them under concepts.

angry students, its windows could be broken, or it could be wrapped in cloth by Christo. None of this would stop me from identifying it as the tower of the science building. I would say: "Hey, look what happened!" But I still would identify the object. On the contrary, if I saw a similar tower a hundred miles from Paris, I would either have to doubt my eyes or have to suppose that this was in fact another tower. A ship moves, but not a tower. So, in the previous cases I identified the object as the tower of the science building because there are any number of plausible external conditions I could formulate for the change of some of its familiar characters. In the second case, although it is not entirely impossible that some external conditions might account for the fact that the science building has changed position in space, it is highly implausible. In my identification of the object, then, the supposition of plausible conditions for the change of state of the object I recognize is just as important as the recognition of its permanent characters.

But analyzing our perception of objective succession in this way seems to take us back to something like the syllogistic model I laid out in the first section of this chapter.³¹ For Kant is telling us that we interpret a subjective succession of perceptions as an objective change of states only if we can suppose the condition of a rule according to which this change of states occurs. In other words, he is telling us that our judgment about the object ("the object has altered, it has passed from state 1 to state 2") can be considered as the conclusion of a hypothetical syllogism whose premises we do not know. For instance, when I perceive the ship as having changed position, all I actually perceive is a ship in position p_1 at t_1 and a ship in position p_2 at t_2 . But I interpret in this way the succession of my perceptions because it is coherent with my experience of what it is to be a ship, to suppose that a ship changes position given the right circumstances. And this means that I can presuppose a rule, without being able to specify what this rule is, so that what implicitly goes on in my mind is something like: "[(1) A ship, if subjected to conditions XYZ, alters its position; (2) this ship is subjected to conditions XYZ;] (3) Therefore this ship has altered its position" (only this last proposition expresses what I actually perceive).

The supposition of a rule in this manner is just what Kant asserts, for instance, in the following passage:

³¹ Only "something like" this model because, as we shall see, it is not obvious that here we have a strictly universal rule, and thus the representation of a necessary connection. I shall return to this point later.

In the synthesis of the appearances the manifold of representations is always successive. Now no object at all is hereby represented, since through this succession, which is common to all apprehensions, nothing is distinguished from anything else. But as soon as I perceive *or presuppose* [sobald ich aber wahrnehme, *oder vorausannehme*, my emphasis] that in this succession there is a relation to the preceding state, from which the representation follows in conformity with a rule, I represent something as an event, as something that happens; that is to say, I cognize an object that I must place in time in a determinate position which, after the preceding state, cannot be otherwise assigned to it. (A198/B243)³²

This gives us the conclusion I stated earlier:

- 5 Perceiving an objective succession (a change of states in an object) is presupposing a preceding state upon which it follows according to a rule.

³² What is all-important here is that we do not know the rule, but only presuppose one, and this presupposition is necessary for the perception of an objective succession. On this point, my analysis of Kant's argument differs from Paul Guyer's. According to Guyer, with the example of the ship Kant intends to show that we can confirm that the ship is sailing downstream only if this interpretation of our perception is in accordance with known causal laws:

"Kant's theory is . . . that it is only if we are in possession of causal laws which dictate that in the relevant circumstances – that is, not in general, but in the particular circumstances of wind, tide, setting of the sails, and so forth, which are assumed to obtain – the ship could *only* sail downstream, that we actually have sufficient evidence to interpret our representations of it to mean that it *is* sailing downstream" (Guyer, *Kant and the Claims of Knowledge*, p. 252). An immediate objection is that this would make Kant's argument circular: to know the causal laws compatible with the perceived movement of the boat, we would have to have already confirmed our perception of this movement on many previous occasions, as well as confirmed the correlations that can be asserted as causal laws. In response to this, Guyer insists that Kant's argument should be understood "not as a psychological model of the generation of beliefs, but as an epistemological model of the confirmation of beliefs" (p. 258). But Kant claims more than this. He does claim to give an account of the generation of our belief that a succession is objective. Guyer's mistake, it seems to me, is to think that for Kant the rule presupposed in every perception of objective succession is a rule (or a set of rules) we actually know.

Note that Guyer and Wood translate *vorausannehme* by "anticipate." I translate it by "presuppose." This difference may be related to the difference between my interpretation and Guyer's. I suppose Guyer understands Kant to be saying, in this passage, that if we anticipate that we will be able to find an explanation for the succession (and thus justify our belief in the existence of an objective succession), then we take it to be objective. I understand Kant as saying that we perceive a succession as objective if and only if we can suppose an antecedent for a rule according to which it occurs. The two interpretations are not incompatible: see what I say below in the main text. But my interpretation attributes a more radical view to Kant: to borrow Guyer's own terms, I take Kant to intend to provide an account of the generation of our belief in the existence of an objective succession, rather than just an account of the justification of that belief.

Now, supposing we accept this line of reasoning, it is still not clear how it would justify Kant's move from (5) to (6), namely from the assertion that "perceiving something as happening is presupposing something upon which it follows according to a rule" to the assertion of the principle as Kant formulates it: "Everything that happens presupposes something upon which it follows according to a rule."

We can say of course that making the presupposition commits us to strive to confirm our perception by actually determining the rule or set of rules according to which we can take the perceived happening to have actually occurred. In this sense, to say that perceiving that something happens is presupposing something else upon which it follows according to a rule is also to say that confirming our perception as the perception of an actual event, or confirming that something has happened, is determining the rule, or set of rules, which warrants asserting that what happened is actually the event we perceived.³³ And on the contrary, finding out that such an event is in contradiction with all known rules of our experience would tend to disconfirm the perception as perception of the event we think we have identified. If I find a warm stone where there has been no sun, no spring of hot water, nobody to light a fire, no other known "antecedent of a rule," I have to start worrying that perhaps what I have in front of me is a dangerous, unknown material from outer space or a particularly weird animal. But the event: "this stone, which normally is cold, has become warm" is put into question. Still, even this makes the principle only an epistemic principle, a principle by which we would confirm or disconfirm our belief that something has happened, not an ontological principle, universally true of happenings themselves.

One could perhaps provide a further answer by pointing out that Kant has restricted the meaning of "object" to "object of possible experience," and that "everything that happens" should be understood as "everything we can possibly experience as happening," that is to say "everything we can meaningfully call an event or a change of state of an object." If we identify an event as event X only by supposing possible rules according to which it happens, then this is just what it takes to be an event X. Moreover, it is not just by arbitrary whim that we suppose

³³ This at least would agree with Guyer's account (cf. n. 32). But even so, the idea that we confirm our interpretation of a perceived succession by relating it to a rule constitutes only a secondary aspect of Kant's argument, which depends on the first: perceiving objective succession is presupposing a rule (as yet unknown).

possible rules according to which a given event can occur. We suppose rules because our sensory given has been such that we could, by associations guided by our capacity to form hypothetical judgments, generate the representation of such rules. Thus it is correct to assert that rules hold of objects themselves, albeit objects as appearances.

Nevertheless, the argument so understood still allows us to say, at most, that there has to be a reasonable degree of regularity in appearances for us to be able to identify any event, or change of state of an object. It does not allow us to assert that for any given event there is a rule, and thus the antecedent of a rule, and thus a cause. What we have here is, on the one hand, a rather loose epistemic principle that says that we should look for rules to confirm our perception of something's having happened; and on the other hand, an even looser ontological principle that says that there is some degree of regularity in nature. We do not have the universal, strictly necessary, objective principle: "Everything that happens presupposes something which it follows in accordance with a rule." Nor do we have any warrant that the rule is itself strictly necessary. In other words, to the first question stated at the end of the first section (do we make the presupposition, for anything that happens, that it presupposes something which it follows in accordance with a rule?) the answer is: yes, we do make the presupposition. This is how we generate the representation of "something that happens," or an event, in the first place. But this positive answer is considerably weaker than the one Kant would like to assert, because "rule" here means just this: rule, regular pattern of recognition that the event instantiates, not strictly necessary rule, or law. To the second question – is the presupposition true? – we have an even weaker positive answer: yes, there has to be some degree of regularity in nature for any identification of an event to be possible. But conformity to a determinate rule is not warranted in every individual case, and there is no clear sense in which the rule could be said to be necessary, or described as a law. And finally, to the third question – does the supposition warrant the transition from judgment of perception to judgment of experience, that is, from the statement of mere regularities to that of law-like connections? – we would definitely have to say, no, it does not.

But again, it is clear both from the formulation of the principle of the Second Analogy, especially in the second edition,³⁴ and from the texts of the *Prolegomena* cited in the first section, that Kant intends to prove more

³⁴ Cf. above, n. 20.

than this. He intends his principle to be asserted as true of every individual event; of every individual event he intends to assert that it occurs in accordance with a strictly universal causal law.

This difficulty has been widely noticed, and is in fact a major reason, as I suggested earlier, for the lack of agreement among Kant commentators on the interpretation of the Second Analogy. It seems that Kant's argument needs repairing, or at the very least disambiguating. But people do not agree on how this should be done. On the Buchdahl–Allison line, Kant's purpose in the Second Analogy was not at all to prove that empirical objects stand under strictly universal causal laws, even less to provide a justification for the transition from mere regularities to empirical causal laws. All he ever intended was to prove that our perception of objective succession (any perception of particular events) presupposes a general concept of causal connection which allows us to think the succession as in some way "constrained" and therefore objective rather than merely subjective and arbitrary. This is sufficient to prove, the view goes on, that the causal principle is not derived from experience, but is instead a transcendental principle of the possibility of experience and thus also a principle of the possibility of the objects of experience. But there is no claim on Kant's part that we shall find, indeed that there are, any empirical causal laws for those particular events we are thus enabled to perceive. Causal laws can be discovered only empirically. That we can and should anticipate them is prescribed to us not by the understanding and its causal principle, expounded and proved in the Second Analogy, but by reason and its regulative idea of a universal order of nature. According to this view, then, not only does the Second Analogy provide a positive answer only to the first of the three questions I stated at the end of the first section, but this answer is seriously weaker than even the formulation I myself reduced it to. What Kant allegedly proves is not that we assume causal regularities in nature when we perceive objective succession. Rather, what he proves is that we are capable of distinguishing objective from subjective succession only because we have at our disposal a causal concept to "bind down" the temporal order of our perceptions. This does not involve making any further assumption about any causal laws or even regularities this succession itself might instantiate.³⁵

Against the Buchdahl–Allison line, Michael Friedman maintains that Kant's intent in the Second Analogy was (1) to defend the universal causal

³⁵ See Buchdahl, *Metaphysics and the Philosophy of Science*, pp. 651–5; Allison, *Transcendental Idealism*, pp. 222–32; see also Allison, "Causality and causal laws."

principle as an objective principle, and (2) to provide the ground for the transition from mere empirical regularities to strictly universal causal laws. That Kant so intends his Analogy (indeed, all three Analogies taken together) is shown, Friedman argues, by the use he makes of them in the *Metaphysical Foundations of Natural Science*. Particularly significant in this regard is Kant's explanation of the way in which Newton's law of universal gravitation is obtained. In ch. 4 of the *Metaphysical Foundations*, Kant argues that the law of universal gravitation is obtained by the application to Kepler's laws, which express observed regularities of the planetary motions in the solar system, of the universal laws of motion stated as axioms in Newton's *Principia*. And in ch. 3 of the *Metaphysical Foundations*, Kant argues that Newton's laws of motion are themselves obtained by application of the Analogies to the empirical concept of matter. Kant's use of the Analogies, so construed, shows eloquently that Kant did intend his causal principle as an objective principle, and that he did intend it as grounding the transition from mere regularities (in this case, Kepler's laws) to strictly necessary causal laws (in this case, Newton's law of universal gravitation).³⁶

However, showing that Newton's law of universal gravitation can be derived from Kepler's laws only under the presupposition of Newton's laws of motion, and that Newton's laws of motion in turn are obtained as strictly universal laws only under the supposition of the Analogies of Experience, is not explaining what makes such application of a priori concepts possible, or in what sense we can hold the causal concept to be actually true of empirical objects. Such an argument shows only that the causal principle is an a priori presupposition of Newtonian science. Kant acknowledges as much in the *Prolegomena* when he analyzes the progress from judgments of perception to judgments of experience, meanwhile expressly sending us to the *Critique* for understanding what makes the concept of cause an objective concept. Clearly, pointing out the use made of the causal principle in natural science is in Kant's eyes sufficient to justify neither this use nor the causal principle itself.

There remains, then, the possibility that Kant was simply mistaken about his own proof. He wanted his argument in the Second Analogy to prove an objective principle asserting the existence of strictly necessary causal laws in nature – a principle which alone was compatible with his interpretation of Newtonian science. But all he could actually propound was the proof of a

³⁶ See Friedman's illuminating analysis in "Kant and the twentieth century," particularly pp. 33–6. See also his "Causal laws and the foundations of natural science," esp. pp. 175–86.

principle asserting the existence of some degree of objective regularity in nature as a condition of possibility of our experiencing events. Such a conclusion would be close to the one Strawson reaches, in *The Bounds of Sense*, after offering what he takes to be the only acceptable version of an argument for the Second Analogy, as opposed to what he has denounced as Kant's "non-sequitur of numbing grossness."

I shall consider again Strawson's view and compare it with mine in the concluding section of this chapter. But first I want to stress that in fact, Kant does offer an answer to the difficulties I raised. The reason this answer has been absent from my account so far is that, to establish it, the discursive model I laid out at the beginning of this chapter and then used in my reconstruction of Kant's proof, is not sufficient. The discursive model has to be completed by appealing to what Kant calls our "pure" intuition of space and time. This is what I now want to consider.

Causality, necessity, and time

All three Analogies have one common premise, which I did not state in the argument outlined and analyzed above, although it in fact plays an important role in the argument of all three: "Time itself is not perceived" (cf. B219, B225, B233, B257). What Kant means by this is that we have no unified temporal frame of reference within which to coordinate states of affairs and events, except through our correlating the latter according to rules.

According to the Transcendental Aesthetic, we have an a priori intuition of time. This intuition consists, very roughly, in our representing time (1) as one time in which all particular temporal relations are determined; (2) as continuous (or what in contemporary terms we would call "dense": between two points in time there is always a third point whose position is determined as being "before" the one and "after" the other); and finally, (3) as a (unified and continuous) time within which every state of affairs and event is completely determined, namely uniquely individuated as to its position (all of these features hold for space too). Now, I want to suggest that these characteristics of time as the intentional correlate of our a priori intuition are precisely what provides Kant with the missing link for transforming the potentially weak version of his answers to the first and second questions we needed the *Critique* to answer (see above, p. 157) into a strong version of these answers. Let me very briefly outline how this is so.

As we saw in the previous section, the argument of the Second Analogy in its first four steps is meant to prove that we perceive an objective

succession just in case we presuppose an antecedent objective state of affairs upon which the succession follows according to a rule. Thus whenever we perceive such an objective succession we are driven to look for something that precedes, that can be thought under the antecedent of a hypothetical rule. Whenever we find that something C regularly precedes the event: A, then B (say, the sun's shining on the stone regularly precedes the stone's being cold, then warm; warm, then warmer) we take C to be the cause of the succession, A, then B. More precisely, as Kant makes clear in the final developments of the Second Analogy, the cause precedes the full realization of the effect, but is simultaneous with the first initiation of the effect (cf. A203/B248). Thus the correlation between cause and effect exists at the very first initiation of the cause, and is continuously preserved through time as long as the cause (what is thought under the antecedent of the rule) obtains. And this preservation through time of any correlation that actually obtains is what makes possible the empirical individuation of states of affairs and events in time. Now, "existence at all times" is what Kant describes as the schema of necessity, that is, the sensible feature by which one may recognize an empirical object as necessary (see A145/B184). I suggest that the only possible candidates for being something that possesses necessity in this sense ("existence at all times"), are the law-like correlations between states of affairs and events preserved through time. These law-like correlations are the empirical realization of our a priori intuition of time as one, continuous time which is the locus of the complete determination (individuation) of events and states of affairs. Because it has to be thought as thus preserved through time (for the unity of time to be empirically realized), the connection between an event and "what precedes it, according to a rule" should be thought as a necessary connection.³⁷

³⁷ In the Transcendental Deduction of the Categories, the argument for the objective validity of the categories is completed only when Kant states that space and time themselves, as formal intuitions, stand under the unity of apperception, and thus under the categories. Thus anything given in space and time is by that alone already susceptible to being thought under the categories (see §26 in the B Deduction, and chs. 1 and 3 in this volume, esp. pp. 32–5 and 67–9). Earlier in this chapter I suggested that appealing to the role of our time-intuition in individuating objects and events in order to complete the argument of the Second Analogy, repeats an earlier move in the argument of the Transcendental Deduction: a move from conditions of possibility for thinking an object to conditions of possibility for the object itself. This is, I suggest, what we see happening here: (5) in my outline of the argument of the Second Analogy said only that we experience objective succession only if we presuppose something, upon which it follows according to a rule; (6) said that objective succession itself presupposes something upon which it follows, etc. The

The argument just outlined provides an interesting view of the difference between the necessity of the analytic connection of concepts (“If there is perfect justice, the obstinately wicked are punished”), and the necessity of the synthetic connection of events in time (“If the sun shines on the stone, the stone gets warm”). What I am suggesting is that for Kant, in the latter case, the a priori intuition of time makes up for the lack of an analytic connection of concepts. If we go back to the discursive model expounded in the first section of this chapter, we can thus say the following. On the one hand, the *modus ponens* based on a synthetic and empirical hypothetical premise is distinct from a *modus ponens* based on an analytic premise: we have and can have no complete concept of the state of the world at any instant t_1 when the sun is shining on a stone, which could yield the complete concept of the state of the world at an instant t_2 such that the stone’s heating up would be contained in it. But on the other hand, no state of an object would be individuated in time (have a completely determinate position in time) unless rules of correlation of events in time were true “at all times.” This is no mere epistemic condition for our knowing objects and events, but a condition for any object’s being an object for us in the first place: a thing endowed with recognizable properties, and individuated in space and time. In other words, according to Kant the preservation at all times of the empirically attested rules of correlation of events and states of affairs (and thus their strict necessity) is a transcendental condition for the representation of objects, i.e. for objects themselves as appearances. For only through such preservation of empirical correlations through time can the unity, continuity, and ordering of our pure temporal intuition be realized in empirical objects of knowledge (appearances).

That the causal principle is a principle of ordering by way of which the order of our temporal intuition is realized in appearances is just what Kant says in the course of the third exposition of his proof:

Understanding belongs to all experience and to its possibility, and the first thing that it does for this is not to make the representation of the objects distinct, but rather to make the representation of an object possible at all. Now this happens through conferring temporal order on the appearances and their existence . . . [Thus] arises a series of appearances, in which by means of the understanding, *the very same*

move is justified, according to Kant, by the fact that there would be no formal intuition of time as that in which any object at all is individuated, unless the conditions for thinking the objects were realized as conditions for these objects themselves, individuated by their position in space and in time. I say more on this point in what follows in the main text.

order and continuous [stetigen] connection in the series of possible perceptions is produced and made necessary as is encountered a priori in the form of inner intuition – time – wherein all perceptions must have their place [my emphasis].
(A199–200/B244–5)

Where does this now leave us with respect to the three questions we needed the *Critique* to answer? (1) Do we presuppose the truth of the proposition “everything that happens follows upon something else according to a rule”? Kant’s response: yes, we do. We would not perceive any succession as an objective succession unless we did make this presupposition. (2) Is the principle true, according to which “everything that happens presupposes something which it follows in accordance with a rule”? Kant’s response: yes, the principle is true. For the complete determination of the spatiotemporal position of objects and their states is achieved only by the universal correlation of appearances determining each other’s state, according to rules. But that they necessarily are completely determined as to their position in space and time is a priori warranted by their belonging to one space and one time, the “pure intuitions” expounded in the *Transcendental Aesthetic* and the “formal intuitions” standing under the unity of apperception, according to the *Transcendental Deduction of the Categories*. (3) How does admitting the truth of the principle justify the transition from asserting observed regularities to asserting that these regularities are strictly necessary causal laws? Kant’s answer: there is no definitive justification in any particular case. It is always possible to mistake a mere regularity (a mere repeated succession of similar events) for a necessary connection (a succession that occurs according to strictly necessary causal laws). But what the principle does tell us is that all events do obey such necessary connections, because without such connections there would be no unity or continuity of empirically real time, and no complete determination of empirical events (no individuation in time).³⁸

³⁸ This is where the regulative idea of a universal order of nature – mentioned earlier in my discussion of Allison and Buchdahl – comes to play an important role. Whenever we do allow ourselves, in any particular case, the transition from asserting a mere regularity (“if the sun shines on the stone, the stone gets warm”) to asserting a causal connection (“the sun warms the stone”), not only do we presuppose the truth of the universal causal principle as an ontological principle in the realm of appearances, as established by the first *Critique*. But moreover we suppose, as an epistemic (therefore “merely regulative”) principle, that the empirical regularity we have discovered is so related to the universal order of nature that it is correct to assign precisely to this regularity the necessary character of a causal law. In the

The burden of the proof of the Second Analogy thus hinges on accepting, (1) that we do have an a priori intuition of one time as the condition for there being any object at all for us, and (2) that empirical time-determinations (time-determinations of empirical objects, as appearances) must exactly map the properties of this a priori intuition, most notably the unity and continuity of temporal determinations, and the complete determination (individuation) of objects and their states in time.

Kant's argument for the nature of space and time is provided in the Transcendental Aesthetic and completed in the Transcendental Deduction of the Categories, in the *Critique of Pure Reason*. Evaluating any aspect of that argument is beyond the limits of this chapter. Let me just point out some of the possible outcomes of such an evaluation. We might conclude that the argument is sound. This would be good for the "strong" version of the Second Analogy. Or, we might deny altogether that we have anything like an a priori intuition of time (and space) as a condition for there being any object at all for us. Or, we might accept that we do have something like the a priori intuition of time (and space) Kant claims we have (an intuition of time and space as one, continuous, infinite, and the condition for any experience of object). But we might maintain that it is a fact about ourselves for which we can give a naturalistic account, just as we can offer a naturalistic account for the fact, say, that we perceive ordinary middle-sized objects as belonging to a three-dimensional space or the sun as revolving around ourselves rather than ourselves as revolving around the sun. We might then think that even if Kant is correct in his account of our experience of objective succession, we need to question rather than endorse the assumptions concerning the supposedly objective features of the world our "natural" representation of time may lead us to form (such as the objective necessity of the causal connection).

If so, we might then be left with the weaker version of Kant's argument, outlined in the second section. As I noted earlier, the outcome of this weaker version bears a close resemblance to the outcome of the argument Strawson, in *The Bounds of Sense*, says Kant should have upheld but did not uphold,³⁹ stumbling instead into the pitfall of the "non-sequitur." However, there are major differences between Strawson's reconstruction of what he takes to be the only acceptable argument for the Second

third *Critique*, Kant adds that making use of such a regulative principle presupposes a principle of reflective judgment, that of the "logical purposiveness of nature." See Kant, *Critique of the Power of Judgment*, Introduction, iv, AAv, pp. 180–1. See also *Critique of Judgment*, First Introduction, vi, Axx, p. 216.

³⁹ See Strawson, *The Bounds of Sense*, pp. 140–6.

Analogy, and the one I think Kant did defend. Strawson's version revolves around the question: what does the world have to be like for our experience of objective succession to be possible at all? His answer is, very roughly, that for such an experience to be possible, nature must offer a background of regularity in the correlated persistence and alterations of objects. Kant's argument as I understand it revolves around the question: what activities of our discursive and receptive capacities are necessary for our experience of objective time-determination to be possible at all? It thus relies on an elucidation of acts of the mind which Strawson, at least in *The Bounds of Sense*, scornfully rejects as belonging to the "imaginary subject of transcendental psychology."⁴⁰

But Strawson's rejection is damaging to our understanding of Kant's argument, which has for its indispensable background Kant's aesthetic as a theory of sensibility, Kant's logic as a theory of discursive capacities, and ultimately Kant's transcendental psychology as an account of how we generate, through the exercise of our imagination guided by our discursive capacities, our representation of a unified world of objects uniquely identifiable and re-identifiable in space and time. I have suggested that Kant's argument for a strong version of the causal principle ultimately depends upon his claims concerning our a priori intuitions of space and time and the conditions of their empirical realization. Given that Kant's theory of space and time is also the most controversial aspect of the system of transcendental conditions of experience he sets up in the first *Critique*, it is no surprise if the point of greatest resistance we reach in examining his argument for the causal principle is met precisely there.

APPENDIX: THE FIVE EXPOSITIONS OF KANT'S ARGUMENT
IN THE SECOND ANALOGY OF EXPERIENCE

Kant's exposition of the argument proper runs from ¶¶1 to 17, where ¶ 1 is the first paragraph of the proof added in B. The order of the proofs I recount starts with the first proof in A, thus ¶3, and ends with the proof added in B, thus ¶¶1–2. I first give an outline of the respective structure of each version of the argument, and then give textual support for each in particular. My view is that in repeating the argument like this, Kant is not just groping for the right formulation. Rather, I suggest Kant proceeds as follows. (1) In A, he gives a first, detailed exposition of his proof, supported

⁴⁰ *Ibid.*, p. 32.

by the now famous example of the difference between (successively) perceiving the (objectively simultaneous) parts of a house and (successively) perceiving the (objectively successive) positions of a ship (§§3 to 6, A189-94/B234-9). (2) He repeats the proof as an indirect proof (§§7-8, A194-5/B239-40). He then raises an objection in empiricist style: why suppose that the representation of causal connection precedes experience rather than being derived from it (§§9-10)? Responding to this objection (§11) leads Kant to (3) a third exposition of the proof, where the collaboration between the discursive role of the understanding and the intuitive role of sensibility in perceiving objective succession becomes more prominent than it was in the previous expositions (§§12-16, A198-201/B243-6). This is important because indeed urging that understanding is necessary for the very combinations of perceptions in sensible intuition is Kant's answer to the empiricist objection. Finally, (4) Kant recapitulates his proof one last time, in a short paragraph (§17, A201-2/B246-7). In the B edition, he prefaces the whole exposition with (5) a very compressed new exposition of the proof (§§1-2, B232-4).

Let me now give the textual support for this reading. The numbering is mine.⁴¹

First exposition (§§3 to 6, A189-94/B234-9)

- 1₁ The apprehension of the manifold of appearance is always successive. The representations of the parts follow upon one another.
- 2₁ Whether they also follow one another in the object is a second point for reflection, which is not contained in the first.

(Here comes a long parenthesis on the notion of an object, which Kant concludes [end of §3, A192/B237] with the statement: "that in the appearance which contains the condition of this necessary rule of apprehension, is the object.")

- 3₁ Yet I also note that, if in an appearance that contains a happening, I call the preceding state of perception A, and the following one B, then B can only follow A in apprehension, but the perception A cannot follow but only precede B. For instance, I see a ship move downstream. My perception of its position downstream follows the perception of its position upstream, and it is impossible that in the apprehension of this

⁴¹ Translations are mine, although I have tried as much as possible to follow Paul Guyer and Allen Wood's translation. I put my own comments on Kant's argumentative moves in brackets.

appearance the ship should first be perceived lower downstream and afterwards upstream. The order in the succession of perceptions in apprehension is therefore here determined, and the apprehension is bound to it. (A192/B237)

(Kant then contrasts this case with the example, previously given, of perceiving a house, where the order of apprehension is arbitrary: “In the series of these perceptions there was no determinate order that made it necessary when I had to begin in the apprehension in order to combine the manifold empirically.” On the contrary . . .)

4_1 This rule is always to be found in the perception of that which happens, and it makes the order of the perceptions that follow one another (in the apprehension of this appearance) *necessary*. (A193/B238)

In accordance with such a rule there must therefore lie in that which in general precedes an event the condition for a rule, according to which the event always and necessarily follows. (A194/B239)

(4_1) as stated here contains in effect (4), (5), and (6) in my analysis of the argument as outlined above: from the fact that (3₁) I perceive a succession as objective just in case the succession in apprehension is order-determinate, and (4_1) this is so just in case a rule makes the order determinate, it follows that (5₁) perceiving an event is supposing a rule, i.e. (6₁) the event itself presupposes a rule, or “in what precedes an event there must be the condition for a rule.”

Second exposition (indirect proof) (§§7–8, A194–5/B239–40)

1_2 Suppose nothing preceded an event, upon which the latter must follow, according to a rule.

(Negation of [4_1] or of [6] in my outline of Kant’s argument.)

2_2 Then all succession of perception would be determined solely in the apprehension, i.e., merely subjectively, but it would not thereby be objectively determined which of the perceptions must really be the preceding one and which the succeeding one.

(Repetition of [1_1] and [2_1] in the direct proof: the negation of [4_1] in the direct proof, or [4], [5], [6] in my outline, leaves us only with [1] and [2].)

3_2 In this way we would have only a play of representations that would not be related to any object at all, i.e., by means of our perception no appearance would be distinguished from any other as far as the

temporal relation is concerned, since the succession in apprehension is always the same, and there is thus nothing in the appearance that determines it so that a determinate succession is made necessary as objective. I shall thus not say that in the appearance two states follow upon one another, but only that an apprehension follows upon another.

(Negation of [3₁] in the direct proof: negation of the order-determinateness of apprehension, and thus of any representation of objective succession.

But the fact is, we do have order-determinateness, and thus representation of objective succession as distinct from merely subjective succession in apprehension. Therefore, premise [1₂] in the indirect argument is false. We can thus assert [5₂):

5₂ If, therefore, we experience that something happens, then in so doing we always presuppose that something precedes it, upon which it follows according to a rule. For without this I would not say of the object that it follows, for the mere succession in my apprehension, if it is not, by means of a rule, determined in relation to something that precedes, does not justify a succession in the object. Thus it is always with respect to a rule according to which the appearances are determined in their succession, i.e. as they happen, by the preceding state, that I make my subjective synthesis (of apprehension) objective; only under this presupposition is the experience of something that happens even possible.

(Note that clearly, according to this formulation, in Kant's mind the epistemic point [5₂] is also the ontological [transcendental] point [6₂): not only do we presuppose something that precedes, but the objective succession [the event] itself presupposes something that precedes, according to a rule.

In ¶¶9 and 10, Kant formulates the empiricist objection mentioned above. In ¶11, he announces that the answer to this objection depends on a correct understanding of what we do when we relate our representations to an object [A197/B242]. This introduces his third exposition.)

Third exposition (¶¶12–16, A198–201/B243–6)

(Note that in this exposition, [3] and [4] in my outline are not clearly distinguished. This makes even more visible the interdependence between the rule-governed character of the objective succession and the irreversibility (order-determinateness) of the subjective succession.)

1₃ In the synthesis of appearances the manifold of representations is always successive.

2₃ Now no object at all is thereby represented, since through this succession, which is common to all apprehension, nothing is distinguished from anything else.

3₃ and 4₃: As soon as I perceive, or presuppose [*wahrnehme oder vorausannahme*], that in this succession there is a relation to the preceding state out of which the representation follows according to a rule, I represent something as an event, or something that happens, i.e. I cognize an object that I must posit at a determinate place in time which after the preceding state cannot not be otherwise assigned . . . Thus it happens that an order is given to our representations, in which the present (insofar as it has come to be) points to some preceding state as an, albeit still indeterminate, correlate of this event that is given, a correlate which relates as a determinant [*bestimmend*] to this given as its consequence, and connects it with itself necessarily in the sequence of time.

(Here comes a long development on the conditions of time perception [¶¶13–14, A199–200/B244–5], where Kant explains the respective roles of understanding and sensibility in our representation of objective temporal succession. Kant then gives what is perhaps his most explicit formulation of [5] and [6]):

5₃ That something happens is therefore a perception which belongs to a possible experience. This experience becomes actual when I regard the appearance as determined in its position in time, and therefore as an object that can always be found in the connection of perceptions in accordance with a rule.

6₃ Now this rule for determining something with respect to its temporal succession, is that in what precedes the condition is to be encountered under which the event always (i.e. necessarily) follows. The principle of sufficient reason is thus the ground of possible experience, that is, of the objective cognition of appearances in respect of their relation in the successive series of time.

Fourth exposition (¶17, A201–2/B246–7)

1₄ To all empirical cognition there belongs the synthesis of the manifold through the imagination, which is always successive; i.e., in it the representations always follow upon each other.

2₄ But the succession is not at all determined in the imagination as to its order (what must precede and what must follow), and the series of

successive representations can be taken backwards just as well as forwards.

3₄ But if this synthesis is a synthesis of apprehension (of the manifold of a given appearance), then the order is determined in the object, or to speak more correctly, there is in the synthesis an order of succession that determines an object.

4₄ In accordance with this order, something must necessarily precede, and when this is posited, then the other must necessarily follow. If, then, my perception is to contain the cognition of an event, i.e. that something actually happens, it must be an empirical judgment in which one thinks that the succession is determined, i.e. that it presupposes with respect to time another appearance, upon which it follows necessarily, or according to a rule. . . .

5₄ Thus the relation of appearances (as possible perceptions) according to which the existence of that which succeeds (what happens) is determined in time necessarily and in accordance with a rule by something that precedes, is the condition of the objective validity of our empirical judgments with respect to the series of perceptions, and thus of their empirical truth, and thus of experience.

6₄ Hence the principle of the causal relation in the succession of appearances is valid for all objects of experience (under the conditions of succession) since it is itself the ground of the possibility of such an experience.

Fifth exposition (¶¶1–2, added under the title “Proof” at the beginning of B: B232–4):

(The proof actually begins with ¶2. ¶1 is a reminder of a result from the first Analogy: all objective change [*Wechsel*, transition from one state of affairs (A) to another (B)] is an alteration [*Veränderung*, change of states of a permanent substance].)

1₅ I perceive that appearances follow one another, that is, that there is a state of things at one time the opposite of which was in the preceding time.

2₅ Thus I am really connecting two perceptions in time. Now connection is not the work of mere sense and intuition, but is here the product of a synthetic capacity of the imagination, which determines inner sense with regard to temporal relation. But imagination can combine the two states in question in two ways, so that either the one or the other precedes in time; for time cannot be perceived in itself, nor can what precedes and what follows in objects be as it were empirically determined in relation to it. I am therefore conscious only that my imagination sets the one state

before and the other after, not that the one state precedes the other in the object; or in other words, through the mere perception the *objective relation* of the appearances that are succeeding one another remains undetermined.

3₅ Now in order for this to be cognized as determined, the relation between the two states must be thought in such a way that it is thereby necessarily determined which of them must be placed before, and which after, rather than vice versa.

4₅ But the concept that carries with it a necessity of synthetic unity can only be pure concept of understanding, which does not lie in perception; and here it is the concept of the *relation of cause and effect*, the former of which determines the latter in time, as its consequence – and not as something that might simply precede in imagination, (or not even be perceived at all).

5₅ Therefore it is only insofar as we subject the succession of appearances, and therefore all alteration, to the law of causality, that experience itself – i.e. the empirical cognition of appearances – is possible.

6₅ Consequently the appearances themselves, as objects of experience, are possible only in conformity with this law.

(Note that this proof follows exactly the order of the premises in my outline of the argument. In one important respect, however, I find this exposition less clear than any of the expositions in A: the representation of the temporal order-determinateness of objective succession is directly related to the causal principle itself, without the intermediate step of “presupposing a preceding state, upon which the succession follows, according to a rule.” I think this lack blurs the nature of Kant’s argument, for it relegates into the shade the logical model I analyzed in part one. But this model, I argued, in fact plays a prominent role in Kant’s argument.)

KANT'S STANDPOINT ON THE WHOLE:
DISJUNCTIVE JUDGMENT, COMMUNITY,
AND THE THIRD ANALOGY
OF EXPERIENCE

Kant claimed that human beings' representation of the world depends on a system of fundamental categories or "pure concepts of the understanding." He also claimed that these categories were originally nothing other than elementary logical functions, which find expression in logical forms of judgment. Kant expounded these functions in a systematic "table" which then became the architectonic principle not only for the *Critique of Pure Reason*, but also for the *Critique of Practical Reason* and the *Critique of Judgment*. In a famous footnote to the *Metaphysical Foundations of Natural Science*, Kant claimed that as long as one accepted the two cornerstones of his doctrine – the merely sensible, receptive character of our intuitions, for which space and time are a priori forms and the derivation of categories from logical functions of judgment – then it mattered little if the details of his proofs (in particular, the details of his transcendental deduction of the categories) failed to carry complete conviction in the eyes of his readers. For the two main points of his demonstration, as far as he was concerned, were sufficiently established. Those two points are that (1) we have a priori concepts of objects originating in the understanding alone; and (2) these concepts can be applied in cognition only to appearances (that is, to objects given in accordance with the a priori forms of space and time), not to things as they are in themselves.¹

¹ Cf. *Metaphysical Foundations*, AAiv, 475–6n.

The problem is that precisely the two purported pillars of the critical system are what consistently met, very early on, with the most radical skepticism on the part of Kant's readers. Kant's logic is charged with being archaic, caught within the narrow bounds of Aristotelian predicative logic. It is also charged with psychologistic fallacy: Kant is mistaken in supposing that logical forms are in any sense descriptions of acts of our minds. As for the role he assigns to a priori forms of intuition in grounding synthetic a priori judgments, Kant is charged with relying on a conception of arithmetic and geometry made obsolete by the development of non-Euclidean geometries and modern quantificational logic; he is also charged with a misguided absolutization of a Newtonian model of natural science made obsolete by revolutions in nineteenth- and twentieth-century physics.

In the present chapter I shall examine Kant's claims concerning the second of the two cornerstones mentioned above: the derivation of categories from logical functions. To do this I shall focus on one particular case: the category of community, its relation to the logical function of disjunctive judgment, and its application to appearances in the so-called "principle of community," the Third Analogy of Experience. This case is interesting for two main reasons. First, it is the most difficult to defend. Kant himself was aware of this, and took great pains to explain why even in this case, however implausible it might seem, the relation he maintained between logical functions and categories does in fact hold. The general view of Kant commentators, however, is that his defense remains utterly unconvincing. I shall argue, on the contrary, that the correspondence Kant wants to establish between the logical function of disjunctive judgment and the category of community is an important and interesting one, although indeed it is more complex than any other. But this very complexity is in fact my second reason for focusing on this case: what makes the category of community difficult to grasp is that it can be understood only in connection with the other two categories of relation (and even with the previous two "titles" of categories, quantity and quality). This being so, examining Kant's argument in this case should also give us some insight into his overall argument on the relation between logical functions, categories, and the application of categories to appearances.

This chapter is in four parts. In the first, I shall briefly expound the relation Kant claims to establish between logical functions of judgment and categories.

In the second part, I shall examine Kant's logical form of disjunctive judgment and its relation to the category of community or universal interaction.

In the third part, I shall examine Kant's proof of the Third Analogy of Experience, namely his proof that necessarily, things we perceive as simultaneously existing exist in relations of universal interaction or, in Kant's terms, of dynamical community.

The lesson of this examination, I shall suggest, is that neither Kant's general claim concerning the role of logical functions of judgment in generating our representations of objects, nor even his more particular claim concerning the relation between the form of disjunctive judgment and the category of community, deserve the summary dismissal they are often met with. Rather, Kant's argument provides an intriguing account of how elementary functions of minds such as ours might be responsible for the unity of our unsophisticated, ordinary perceptual world, as well as for the relation between this world and our more sophisticated, scientific worldview.

Finally, in the fourth and concluding part I shall suggest that paying close attention to the Third Analogy (the "principle of community") and not just to the better-known Second Analogy (Kant's response to Hume on the concept of cause and its objective validity) give us important insights into the unity of Kant's critical system as well as its relation to its philosophical posterity.

Logical functions and categories: the understanding as a capacity to judge

In the *Critique of Pure Reason*, Kant explains that the understanding, or intellect as a whole – the intellectual faculty at work in forming concepts, combining them in judgments, combining judgments in inferences, and finally constituting systems of knowledge – the intellect that produces all this is essentially a *Vermögen zu urteilen*, a capacity to form judgments.² In other words, describing the features of the intellect that make it capable of forming judgments is by itself describing just those features that also make it capable of forming concepts, inferences, systems of thought and knowledge. This is because, as Kant puts it in the section that precedes his table of logical functions of judgment, if we start with the traditional notion that the understanding is a capacity for concepts, we soon find, upon examination, that we form concepts only for use in judgments, and this use itself involves implicit inferential patterns and their systematic arrangement.

² Cf. A69/B94, A81/B106. Cf. chs. 2 and 4 in this volume.

Kant's explanation of this point can be summarized as follows. Concepts, as he defines them, are "universal and reflected representations." They are formed by comparing individual objects, focusing on the common features or marks of these objects and ignoring their differences.³ A concept is thus a conjunction of common marks under which one may recognize a class of objects as falling under the same concept. But this means that forming concepts is forming implicit judgments: for instance, forming the concept "tree" is forming the implicit judgment, "everything that has a trunk, branches, and roots, is a tree" (and conversely, "everything that is a tree has a trunk, branches and roots"). On the other hand, forming such a judgment is forming the major premise for a possible syllogistic inference, for instance, "everything that has a trunk, leaves, and roots, is a tree; this tiny thing here has a trunk, branches, roots; therefore it is a tree." Judgments and syllogistic inferences, systematically arranged, give rise to universal hierarchies of genera and species under which individual things are classified into natural kinds; thus they give rise to systematic knowledge.

It is by virtue of their form that judgments can thus be the source of the systematic unity of knowledge. What Kant calls the form of a judgment is the way concepts are combined in judgment.⁴ When we analyze the "mere form" of judgment, we have to consider concepts themselves as to their "mere form," namely their universality: their being combinations of marks common to a multiplicity of individual objects.⁵ The "form" of a judgment is thus the way in which concepts, as universal representations, are combined in it. Kant's table of logical forms of judgment⁶ is a table of just those modes of combination of concepts that are minimally necessary for the functions of intellect briefly outlined above to emerge: subsumption of individual objects under concepts, syllogistic inference, the systematic arrangement of knowledge and thought.

³ This is true also of the categories, but does not challenge their apriority. On this point, see above, ch. 1, pp. 26–9; also *KCJ*, p. 121.

⁴ Cf. *Jäsche Logic*, §18, AA1x, p. 101. Also *Reflexionen* 3039 and 3040, AAxvi, pp. 628–9.

⁵ *Jäsche Logic*, §2, §§ 4–8, AA1x, pp. 93–6; *Reflexion* 2855, AAxvi, p. 547; *Reflexion* 2859, AAxvi, p. 549.

⁶ On Kant's notion of a "function" of judgment, see A68/B93. Cf. also A70/B95. If we rely on Kant's explanations in these texts, logical function and logical form of judgment seem to be distinguished as (1) the structure of an act – a structure that makes the act adequate to achieving a specific purpose, that of "ordering representations under a common representation" – and (2) the result of the act: the mode of combination of concepts, or the "form" of the judgment resulting from the act. On this point, see above, ch. 4, pp. 92–5.

I now want briefly to review this table, with only the degree of detail necessary to situate the particular function of disjunctive judgment within it.

Recall that concepts, in Kant's logic, are defined as "universal and reflected representations" (that is, as universal representations formed by comparing objects, selecting common marks, leaving aside particular marks by which the objects thought under the same concept nevertheless differ from each other). So considered, the kinds of combinations concepts may enter into in judgment are exclusively what Kant calls "concept subordinations," where the extension of one concept (everything that falls under the concept) is, as a whole or only in part, included in, or excluded from, the extension of the other. The first two titles in Kant's table (quantity and quality, in their first two moments: universal and particular, affirmative and negative) describe precisely the four possible cases just mentioned: inclusion of the extension of a concept in the extension of the other, or exclusion therefrom (affirmative or negative judgment, As are B or As are not B), in totality or in part (universal or particular judgment, all/no As are B, some As are/are not B).⁷ To these four possible combinations that exhaust the possible cases of concept subordination, Kant adds, under each of the first two titles (quantity and quality), a form of judgment that relates concept subordination, respectively, to individual objects (singular judgment under the title of quantity), and to the unified logical space within which all spheres of concepts reciprocally limit each other ("infinite" judgment, A is not-B).

The *raison d'être* for the third title, that of "relation," is more difficult to elucidate. Kant notes that a judgment, considered according to the forms of relation, combines two concepts (categorical judgments) or two judgments (hypothetical judgment, where the connective is "if . . . then") or several judgments (disjunctive judgment, where the connective is "either . . . or") (A73/B98). This is hardly any explanation at all. We can do better if we consider the relation of judgment to syllogistic inference mentioned above. We saw that combining concepts in a universal categorical judgment (all As are B) was *eo ipso* obtaining the premise for a syllogistic inference in which one might attribute the predicate B to anything thought under the subject-concept A. This is

⁷ On these explanations and the privilege given to the point of view of extension in defining the form of judgment as to its quantity and quality, cf. *Jäsche Logic*, §§21–2. Note that consideration of the extension of concepts, and of judgment as expressing the inclusion or exclusion of concepts' respective extension (*Umfang*), is also prominent in the explanations Kant gives at A71–2/B96–8.

why Kant calls a universal categorical judgment a rule, and the subject-concept in such a judgment the condition of a rule (for instance, the concept “man” functions as a condition of the rule: “all men are mortal”). The term “condition” should here be understood as meaning “sufficient” not “necessary” condition: that some entity X be a man is a sufficient condition for its being mortal. Or, if X is a man, then X is mortal. Since being a man is a sufficient condition for being mortal, subsuming any individual X under the concept “man” provides a sufficient reason for asserting of it that it is mortal.⁸

However, there are other kinds of conditions of a rule. One is that of hypothetical judgment, the second title of relation in Kant’s table. According to this form, a concept is not by itself, on its own, the condition for attributing a certain mark to an object thought under the concept. Instead, one can do so only under an added condition: “If C is D [added condition], then A is B” (and thus any object X subsumed under the concept A receives the predicate B under the added condition that some relevant C is D). Kant’s example is the proposition: “If there is perfect justice, then the obstinately wicked will be punished.” (Implicit possible subsumption: any individual falling under the concept “wicked” is doomed to be punished, under the added condition that the state of the world be one of perfect justice). Or, to take up an example Kant uses in the *Prolegomena*, “If the sun shines on a stone, the stone gets warm” (implicit possible subsumption: any individual falling under the concept “stone” gets warm, under the added condition that the stone be lit by the sun).⁹

A third kind of condition of a rule is that expressed in a disjunctive judgment. The proper function of this form of judgment is to recapitulate, as it were, the possible specifications of a concept. According to this form, one divides a concept, say A, into mutually exclusive specifications of this concept, say B, C, D, E: A is either B, or C, or D, or E. There are two different ways in which one might consider it as a possible rule for subsumption, and thus a rule by virtue of which one might attribute some predicate to any individual thought under the condition of the rule. One is to say that the subject of the disjunctive judgment, say A, is the condition of the rule “A is either B, or C, or D, or E,” so that being thought under A is a sufficient condition for being thought as falling

⁸ On the notion of the condition of a rule, see A322/B378; also *Jäsche Logic*, §58, AAix, p. 120. *Reflexionen* 3196–3202, AAxvi, pp. 707–10.

⁹ Cf. *Prolegomena*, AAiv, p. 312. And see above, ch. 6, pp. 151–3, for the difference between Kant’s hypothetical judgment and the material conditional of modern propositional logic.

under either B, or C, or D, or E. But this is not terribly informative. A more interesting way (corresponding to the classical inferences in *modus ponendo tollens* or *modus tollendo ponens*) is to consider the assertion of any one of the specifications (B, C, D, or E) of the divided concept A as a sufficient condition for negating the others, and conversely considering the negation of all but one as a sufficient condition for asserting the remaining one: A is B under the condition that it be neither C, nor D, nor E; A is neither C, nor D, nor E, under the condition that it be B; and so on.¹⁰ Note also the close connection between the forms of disjunctive and infinite judgment: these forms jointly contribute to the constitution of a unified logical space within which concepts delimit each other's sphere, and thus contribute to the determination of each other's meaning.

About the fourth title, that of modality, Kant explains that it does not add to the "content" of judgments. What Kant seems to mean is that the modal determinations of judgment do not determine a specific difference in the function of judging – by contrast with quantity, according to which one subordinates all or part of the extension of two concepts; with quality, according to which the extension of the subject-concept is included in or excluded from the extension of the predicate-concept; and with relation, according to which one states that the predicate-concept can be asserted of individual objects under the condition that the subject-concept itself be asserted of them, or under an added condition (expressed in the antecedent of a hypothetical judgment). Instead, the modality of a given judgment expresses only "its relation to the unity of thought in general." Correspondingly, Kant's modality of judgments finds no particular linguistic expression, contrary to quantity ("all" or "some"), quality ("is" *simpliciter* or "is not") and relation ("is," "if ... then," "either ... or"). Instead, in the examples Kant gives for "problematic," "assertoric," or "apodictic" judgments, modality is marked by no particular modifier but consists, he says, merely in the "value of the copula" in the judgment,

¹⁰ Just as Kant's hypothetical judgment is different from truth-functional material conditional, so Kant's disjunctive judgment is different from truth-functional disjunction. First of all, as we just saw, Kant's disjunctive judgment is a disjunction of predications: a concept A is specified as either B, or C, or D, or E (and thus any object falling under A falls under either B, or C, or D, or E). Second, the disjunction is exclusive, not inclusive: what is asserted in a disjunctive judgment is that if one of the disjunct predicates belongs to the subject, then the others do not, and conversely. Thus the meaning of the connective "either ... or" grounds the forms of inference in *modus ponendo tollens* and *tollendo ponens*: asserting one of the predicates is a sufficient reason for negating the others, negating all but one is a sufficient reason for asserting the remaining one.

as determined by its place in a hypothetical or disjunctive judgment or in syllogistic inferences (A74–6/B100–1).

These remarks are certainly too brief to give a full account, even less an evaluation, of Kant's table. My hope is that they at least shed some light on the systematic character and, in the end, the simplicity of Kant's table: it displays forms (1) of concept subordination (first two moments of quantity and quality), (2) under either an "inner" or an "outer" condition (first two moments of relation), which also takes into account (3) the subsumption of singular objects under concepts (singular judgments, third moment of quantity) and (4) the unity of concept subordination in a system of genera and species (infinite and disjunctive judgments, third moments of quality and relation). Finally, (5) the place of each judgment in other judgments or in inferences (its "relation to thought in general") determines its modality. It is no whimsical choice on Kant's part to have presented these forms as a table. The tabular presentation makes perspicuous "at one glance" the systematic whole of elementary logical functions at work for the production of any of the judgments by means of which individual objects given in sensibility are subsumed under concepts.

Kant calls analysis the use we make of the understanding according to the logical forms laid out in his table. By analysis here he does not mean simply or even primarily analysis of concepts, i.e. the laying out of the marks that constitute the content of a given concept. He means the analysis of representations given in sensibility so as to generate concepts from them, by means of the aforementioned operations: comparing individual objects, focusing on common features or marks of these objects and setting aside their differences.¹¹ Now, such analysis presupposes that the objects in question are combined together in some way, in order to be thus compared and subsumed under concepts. And not only this: they need to be recognized as a plurality of individual things that remain identical through time.¹² For this much more than simply bringing together objects for comparison is needed. What is needed is a process of generating the representation of these objects themselves as numerically identical individuals persisting through time. And for this, our representation of space and time themselves need to be unified and

¹¹ On this notion of analysis, cf. A76/B102. So considered, analysis consists in the operations of "comparison, reflection, abstraction" described in *Jäsche Logic*, §6, AAix, p. 94; cf. *Reflexion* 2876, AAxvi, p. 555. And above, ch. 1, pp. 21–3.

¹² On this point, see *KCJ*, ch. 3, pp. 44–52.

ordered. All of these operations of bringing together and ordering (which I list here in a regressive order, from the derivative to the primary): (1) bringing together individual things for comparison, (2) generating the representation of these individual things as numerically identical and persisting through time, (3) bringing together the manifold of space and time themselves – all of these operations Kant calls synthesis. For any analysis leading to concepts to take place, synthesis must already have taken place. And given that analysis proceeds according to the logical functions of judgment, synthesis too must take place in such a way that what is synthesized becomes susceptible to being brought under concepts according to the logical functions of judgment.

This relation between analysis and synthesis, finally, provides the key to Kant's definition of the categories. They are, he says, "universal representations of pure synthesis" or, according to the more extensive definition of the B edition, they are "concepts of an object, by means of which the intuition of this object is taken to be determined with respect to one of the logical functions of judgment" (A78/B104; B128). This means two things: (1) categories are concepts that guide the syntheses of spatiotemporal manifolds toward analysis according to the logical functions of judgment, and (2) categories are, like any other concept, "universal and reflected representations." What they "universally reflect," however, are not empirical features of objects, but just those syntheses by means of which manifolds given in (pure or empirical) intuition become susceptible to being reflected under concepts combined according to logical functions of judgment.

I said a moment ago that Kant's table of logical functions was meant to make available "at one glance" the system of elementary logical functions necessary to generate the least empirical judgment by means of which empirical objects are subsumed under concepts. I also suggested that the specific role of infinite and disjunctive judgments is to relate all concept subordination to the unified logical space within which concepts reciprocally delimit each other's sphere and meaning. If I am right, this means that correspondingly, the specific synthesis corresponding to these logical forms will be a synthesis by means of which the totality of objects belonging to a common logical sphere is reflected under concepts. The logical form of disjunctive judgment, and the corresponding category of community, thus provide the general structure, or ordering function, for the standpoint on the whole in the context of which any cognitive function is performed.

I now want to show what this means by considering more closely Kant's exposition of the relation between logical form of disjunctive judgment and category of community.

Disjunctive judgment and the category of community
(*Gemeinschaft, Wechselwirkung*)

There are two ways in which Kant might choose to characterize the form of disjunctive judgment. He could characterize it by focusing on the relation of concepts considered in their content, and say that a concept A is determined, that is, specified, either by the specific mark B or by the specific mark C – for instance, an animal is either a human being or a beast, a rational or a non-rational animal. Or he might characterize the form of disjunctive judgment by focusing on the extension of concepts and say that in a disjunctive judgment, one states that a concept A, considered in its extension or sphere, is divided into two mutually exclusive and exactly complementary spheres, the sphere thought under concept AB and the sphere thought under concept AC.

Kant chooses the second description of the form of disjunctive judgment, focusing on the extension of concepts. This is particularly explicit in the *Jäsche Logic* as well as in the *Reflexionen* on logic from the critical period. There Kant pictures the disjunctive judgment “A is either B, C, D, or E” by the division of a rectangular area A (representing the extension of the divided concept A) into four regions B, C, D, and E (which respectively represent the extensions of the species of A). In a disjunctive judgment, says Kant, any “X thought under the concept A” belongs to one or the other of the divisions B, C, D, or E. He prefaces this explanation by a comparison between categorical and disjunctive judgment:

In categorical judgments, X, which is contained under B, is also contained under A:

In disjunctive ones X, which is contained under A, is contained either under B or C, etc.

Thus the division in disjunctive judgments indicates the coordination not of the parts of the whole concept, but rather of all the parts of its sphere.¹³

In the *Critique of Pure Reason*, Kant draws a surprising parallel between this logical form and the category of community: just as in a disjunctive

¹³ *Jäsche Logic*, §29, AAix, p. 108. Cf. also *Reflexion* 3096, AAxvi, pp. 657–8.

judgment, the sphere of a concept (its extension) is divided into its subordinate spheres so that these subordinate spheres are in a relation of mutual determination while at the same time excluding each other, so in a material whole, things mutually determine each other, or even in one material thing or body considered as a whole, the parts are in a relation of mutual attraction and repulsion:

In order to be assured of this agreement [between the category of community and the form of a disjunctive judgment], one must note that in all disjunctive judgments the sphere (the multitude [*Menge*] of everything that is contained under it) is represented as a whole divided into parts (the subordinated concepts), and, since none of these can be contained under any other, they are thought of as *coordinated* with one another, not *subordinated*, so that they do not determine each other *unilaterally*, as in a series, but *reciprocally*, as in an *aggregate* (if one member of the division is posited, all the rest are excluded, and vice-versa). Now a similar connection is thought of in a *whole of things*, since one thing is not *subordinated*, as effect, to another, as the cause of its existence, but is rather coordinated with the other simultaneously and reciprocally as cause with respect to the determination of the other things (e.g., in a body, the parts of which reciprocally attract and also repel each other). (B 112, translation modified)¹⁴

What is surprising here is that Kant appears to assimilate a logical relation between concepts and a material relation between things: the mutual exclusion and complementarity of spheres or extensions of concepts is assimilated to the mutual determination, by attraction and repulsion, of material bodies or parts of material bodies.

But this cannot possibly be right. Assimilating in this way the relation of mutually exclusive concepts in a disjunctive judgment and the relation of things belonging to one world-whole, or of parts making up one material thing, is *prima facie* precisely the kind of move Kant rejects throughout the *Critique*. As he insists in the appendix to the Transcendental Analytic, On the Amphiboly of Concepts of Reflection, this rejection is the core of his opposition to Leibnizian rationalist metaphysics. Leibniz's major metaphysical mistake, according to Kant, is to have thought that things could be distinguished and determined by concepts alone, specified all the way down to individuals, so that the

¹⁴ When Kant talks about "the multitude ... contained under a judgment" he presumably means: the multitude thought under each sub-species of the divided concept (for instance, the multitude thought under AB, and the multitude thought under AC).

latter are completely determined as *infimae species*, lowest specifications of concepts. Against this view Kant maintains, in the Amphiboly, that two drops of water, for instance, may be identical as to their concepts, namely as to the discursive representation of their internal determinations of shape, size, and quality, and nevertheless be numerically distinct, solely by virtue of their position in space (A264/B320).¹⁵ Similarly, any two surfaces may be identical to one another as to their concept, namely their internal determinations of size and shape, and nevertheless be numerically distinguished by their position in space as a whole. Now, it seems that the parallel Kant draws, in the Metaphysical Deduction of the Categories, between the logical relation of mutually exclusive and complementary concepts in disjunctive judgment on the one hand, and the relation of things expressed in the category of community on the other hand, is just the Leibnizian error Kant denounced in the Amphiboly chapter. This impression is only enhanced by the fact that in the text quoted earlier, Kant describes the reciprocal action between parts of things in terms of attraction and repulsion, namely in terms of precisely the kind of external relation that he insists is quite distinct from the relation of internal determinations expressed in a logical disjunction of completely determined concepts, as Leibniz would have it (cf. A265–6/B321, A274/B330).¹⁶ This being so, the skepticism or even derision frequently directed at Kant's claim concerning the parallel between the logical form of disjunctive judgment and the category of community seems to be a very healthy one indeed by the terms of Kant's own doctrine. For if this parallel displays the very confusion Kant himself

¹⁵ Cf. Leibniz, *Nouveaux essais sur l'entendement humain*, II, ch. 27, §3. Engl. trans. and ed. Peter Remnant and Jonathan Bennett *New Essays on Human Understanding* (New York: Cambridge University Press, 1981).

¹⁶ One may argue on Kant's behalf that he explains the form of disjunctive judgment in terms of the division of the sphere or extension of a concept into its subspheres, which is the division of a whole into its parts and thus grounds the parallelism with the division of a whole of physical things into its parts, or even the division of one physical thing into its parts (category of community). This is correct as far as it goes, but it is not sufficient to alleviate the charge of amphiboly. First, it remains that if things are represented as the ultimate parts of the sphere of a concept, then they are individualized as *ultimae species*, lowest specification of a concept, instead of being, as Kant claims they should be, individuated (represented as numerically distinct) by virtue of their position in space and time as forms of sensible intuition. Second, Kant invariably presents the category of community as a concept of the universal interaction of empirical things. We need more than a consideration of concepts according to their extension to explain how such an interaction might relate to the community of concepts under a higher concept, and thus clear Kant of the suspicion of amphiboly. And indeed, Kant does provide us with more justification than this, as I show below. See also *KCJ*, pp. 436–53.

denounces in the Amphiboly, there is every reason for discounting this particular correspondence between logical form and category.

However, I want to argue that this suspicion, despite its seeming plausibility, is unwarranted. Kant's point is not that relations of things in space (the a priori form of external sense) are essentially the same as relations of concepts in logical space. If we follow the general thrust of his metaphysical deduction of the categories, we should understand his point as being, rather, that the same act of the mind which, by means of analysis, generates the form of disjunctive judgment and eventually, the form of a unified system of such judgments, also generates, by means of the synthesis of spatiotemporal manifolds, the representation of a community of interacting things or parts of things – “for instance” (B112 quoted above) the relations of reciprocal attraction and repulsion of parts in a material body. And indeed, this is what Kant writes:

The same procedure of the understanding when it represents to itself the sphere of a divided concept, it also observes in thinking 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 understanding represents to itself the parts of the latter as being such that existence pertains to each of them (as substances) exclusively of the others, even while they are combined together in one whole. (B113, emphasis mine; translation modified)

Note here how systematic the correspondence is. Just as the understanding represents to itself the subspheres (the extensions of the subconcepts) of a divided concept as excluding one another (if one of the specifications is asserted of the divided concept, the others are excluded), so it represents to itself the existence of an individual substance as excluding the existence of all others (where one exists, no other can exist at the same time). Just as the subconcepts are represented as combined together in one whole, so the things or parts of things are represented as constituting one material whole.¹⁷ However, this similarity in the relations represented by the understanding should not lead us to forget – on pain of amphiboly – the dissimilarity between the two cases: the individuation of things in space cannot be represented by way of the specification of concepts. What we want to know, then, is how this individuation is represented by the understanding. Kant's answer,

¹⁷ I am grateful to Steve Engström for pressing me on this point and bringing to my attention the full measure of the structural similarities Kant underlines here.

according to the Metaphysical Deduction of the Categories cited in the first section of this chapter, is that individuation of things in space is represented by way of the acts of *synthesis* that are necessary if any *analysis* of the sensible given into concepts is to be possible.

I intend to show that Kant's argument in the Third Analogy is meant to lay out just those acts of synthesis by way of which things are individuated in space and time. According to Kant, those acts of synthesis are acts by means of which things are represented as being in relations of universal causal interaction. Only insofar as they are so individuated can they also be thought under concepts of natural kinds (namely, under a universal scale of genera and species) ordered according to the form of disjunctive judgment and a system of such judgments.

If this is correct, one can perhaps complete Kant's elliptic statement in the passages just cited by saying the following. For a Leibnizian, the similarity between the understanding's representation of the mutual relation of disjunctive spheres of a divided concept on the one hand, and the mutual relation of things or parts of things in space on the other hand, goes all the way down: individual things just are ultimate specification of concepts. For Kant, by contrast, although there is indeed the systematic similarity described above between the understanding's representation of the two relations (between concepts, between empirically given things in space), one of them (the relation of concepts) is thought by way of analysis (of the sensible given into concepts; and of concepts into higher concepts); the other (the relation of things) is represented by way of synthesis of manifolds in space and time, a synthesis that results in presenting things as individuated in space by their relations of universal interaction.

Here again the Amphiboly chapter may help us clarify Kant's view, no longer as a warning against possible amphibological interpretations of his point, but rather as a confirmation of the positive account I just gave of the correspondence between the logical disjunction of concepts and the category of community. Kant explains, in the Amphiboly, his opposition to Leibniz's view according to which substances are individuated by their intrinsic determinations (determinations they have on their own, independently of any external relation to other substances). According to Kant, on the contrary, substances, i.e. material things whose essential properties persist while their accidental properties change,¹⁸ are recognized under concepts of external relations (mutual

¹⁸ On Kant's concept of substance, see ch. 2 in this volume, pp. 53–4.

causal determination). This means, then, that the move from recognizing things as individuated in space and time, to thinking them under concepts of natural kinds, is a move from representing them in relations of universal mutual interaction, to thinking them under concepts of relational properties (cf. A274–5/B330–1, A283–4/B339–40).

Let me summarize my argument so far: it might seem that in relating the category of community, or universal interaction, to the logical form of disjunctive judgment, Kant is guilty of the very amphiboly that he denounces in Leibniz (confusion between the relation of mutual determination between spheres of concepts, and the relation of mutual causal determination between things). However, I argue that Kant is not guilty of this confusion. Rather, Kant's point is that the concepts of natural kinds under which we know material things in nature (and thus, classify them under hierarchies of genera and species according to the form of disjunctive judgment) are concepts of relational properties – universal causal interaction. This being so, the category of community (*Gemeinschaft*), by virtue of which things are thought as belonging under one logical space of concepts, is also a category of universal causal interaction (*durchgängige Wechselwirkung*), by way of which they are thought as universally related in one empirical space (and time).

To examine Kant's argument for this point, I now turn to the Third Analogy of Experience.

Kant's proof of the Third Analogy: simultaneity and universal interaction

In the Third Analogy of Experience, Kant argues that our experiencing the simultaneous existence of appearances is sufficient to attest that these appearances are in relations of thoroughgoing community (*Gemeinschaft*) or interaction (*Wechselwirkung*). This is because, Kant argues, representing the simultaneous existence of appearances is our doing, and this representation is possible only if we represent appearances as being, with respect to one another, in relations of universal interaction. Thus the statement of the Analogy: “All substances, insofar as they can be perceived in space as simultaneous, are in thoroughgoing interaction [*in durchgängiger Wechselwirkung*]” (B256).¹⁹

¹⁹ In the first edition, the Analogy is stated as follows: “Principle of community. All substances, insofar as they are simultaneous, stand in thoroughgoing community (i.e. interaction with one another).” The formulation in B is superior in that it makes clearer that “simultaneous” means: “something *we* represent, or perceive, *as* simultaneous.” Similarly,

As any careful reader of Kant's Analogies of Experience knows, the three Analogies should be read together as one argument, which concerns the conditions of our representation of objective time-determinations. Kant's question is: how do we come to have any representation at all of objective temporal determinations of appearances, since our apprehension of them is always successive, and since we have no given temporal framework that might allow us to locate events and states of affairs in time? In the Second Analogy, Kant explains how the subjective succession of perceptions in apprehension can be the experience of an objective succession of states of things; in the Third Analogy, he explains how the subjective succession of perceptions in apprehension can be the experience of an objective simultaneity of things in particular states. Prior to this, in the First Analogy he has argued that any representation of objective temporal order (succession or simultaneity) rests on the presupposition of something permanent, as the substrate of objective temporal determinations. I do not propose here to evaluate Kant's overall argument in the Analogies of Experience.²⁰ What I am mainly concerned with is how discursive forms (forms of analysis or reflection) and forms of sensible synthesis relate, according to Kant, in the particular case of the Third Analogy.

Kant's reasoning proceeds, roughly, according to the following steps:²¹

the argument in B is more clearly laid out as an argument about the conditions for our experiencing things as simultaneous. One may wonder how such conditions put any constraint at all on how things actually are. But the Transcendental Deduction is supposed to have established just this point: the conditions of possibility of experience are the conditions of possibility of the objects of experience. Evaluating the argument of the Deduction is of course beyond the scope of this chapter. One should at least remember one essential aspect of its conclusion: the objects we are talking about here are objects as appearances – as individuated in space and in time, the forms of our sensible intuition.

²⁰ For an analysis and evaluation of Kant's Analogies of Experience, see *KCJ*, ch. 11. On the Second Analogy, see ch. 6 in this volume.

²¹ There are two expositions of the argument in the Third Analogy. The first in A, remaining unchanged in B: A211/B258–A213/B260. The second added in B: B256–8. In my view, the exposition in B is the clearer of the two, for reasons similar to the ones I advocated in the previous footnote: the argument in B, just as the formulation of the Analogy itself, makes it clearer that what Kant is talking about are the conditions for our experience of objective simultaneity (which is also the only context in which the very notion of simultaneity has any meaning at all). In my reconstruction of the argument I will thus follow the order of the B edition. In an effort to limit the length of the footnotes, I shall indicate the textual support for each step simply by the reference in B (i.e. the 1787 version) and A/B (when the 1781 version provides useful additional textual support). I shall not quote the texts themselves.

- 1 The synthesis of our apprehension in imagination is always successive.²²
- 2 We nevertheless experience a subjective succession in apprehension as an objective simultaneity of things in particular states if, and only if, we experience the subjective succession as being order-indifferent. For example, we are conscious that we could direct our gaze indifferently from the moon to the earth or from the earth to the moon; it is in this way that, even though we might never perceive at the very same time the moon at its zenith and the surface of the earth, we do experience these objects as simultaneously existing (B257; A211/B258).
- 3 We have no perception of time itself that would allow us to derive from the simultaneity of objective states of things the order-indifference of the subjective succession in our apprehension of these states (B257–8).
- 4 Nor would the mere subjective succession of perceptions in our apprehension suffice to generate either the representation of its own order-indifference or the interpretation (experience) of this order-indifference as objective simultaneity. Subjective succession in apprehension would, by itself, give us only: one perception, then the other, and reciprocally, the latter, then the former. It would give us no access to the simultaneity of things as the necessary condition for the order-indifference of the perceptions (B257).
- 5 We are conscious of the subjective succession as order-indifferent, and thus as a representation of objective simultaneity if, and only if, in relating the subjective succession of perceptions in apprehension to objects, we form judgments such as: if object X (recognized under concept A) exists at time t at point p_1 , then object Y (recognized under concept B) exists at that same time at point p_2 , and reciprocally, if the latter exists, then the former exists at the same time. We thus think X and Y as being in themselves determined with respect to the logical form of a hypothetical judgment whose reciprocal converse is also thought to be true (if X, recognized under A, exists at p_1 at t , then Y, recognized under B, exists at p_2 at t ; and conversely if Y recognized under B at p_2 at t , then X under A at p_1 at t). Thus a pure concept of

²² This premise is not explicitly stated in the argument of the B edition, but it is common to all three Analogies, and explicitly stated in the first and second: see A182/B225 (First Analogy), A189/B234, A198/B242 (Second Analogy); in the Third Analogy, this premise is implicit at B257.

- the understanding is applied whenever we experience objective simultaneity (B257).²³
- 6 This concept is that of mutual conditioning, i.e. interaction. Thus the coexistence of things in space can be experienced only under the presupposition that they are in relations of universal interaction or community (B257–58; also A212–13/B259–60).
- 7 So, all appearances, insofar as we perceive (experience) them as coexisting, exist in relations of thoroughgoing reciprocal influence (B258; also A213/B259–60).²⁴

²³ In what I present as step (5), I am making explicit that the “pure concept of the understanding” needed to represent the reciprocal sequence as objective is the “concept of an object, by means of which its intuition is regarded as determined with regard to one of the logical functions for judgment” (cf. B128), in this case the function of a hypothetical judgment together with its reciprocal converse. Here again, as in the case of the Second Analogy, I hope to show why it is helpful to stress this relation between the pure concept of the understanding and the corresponding logical function of judgment. Note already that the logical function at work here is *not* that of a disjunctive judgment, but that of a hypothetical judgment (and its reciprocal converse). This is quite explicit in Kant’s presentation of his example, that of perceiving the earth and the moon to exist simultaneously:

“The synthesis of imagination in apprehension would only present each of these perceptions as one that is present in the subject when the other is not, and conversely, but not that the objects are simultaneous, i.e., that *if the one is then the other is also at the same time*, and that this is necessary in order for the perceptions to be able to succeed each other reciprocally (B257, emphasis mine).

Of course a disjunctive judgment might itself be translated into hypothetical judgments, such as: “if the one is at a given point, then the other is not,” where each of the two simultaneously existing things excludes the other from the point in space which it, itself, occupies, just as each of the two concepts B and C dividing a higher concept A in the disjunctive judgment: “A is either B or C” each exclude the other’s extension from their own. But it is important to note that it is not this negative form that Kant mentions in expounding his argument: what he says is that “If the one is then the other *is also* at the same time.” This, it seems to me, expresses the relation of mutual conditioning that would be captured by two reciprocal hypothetical judgments. Each of the two coexisting things is thus individuated as to its existence in space by its relation to the other (and in fact, each of the indefinitely many coexisting things is thus individuated by its relation to all the others) and eventually reflected under concepts that can be combined according to the form of disjunctive judgments, say for instance: “this is either outside the solar system or a satellite of the sun or a satellite of another body within the solar system.”

²⁴ Note that here we find the same move as in the Second Analogy, from what we presuppose, to what is true of objects (as appearances). I suggest that the move is (implicitly) justified here in the same way as it was there: by referring back to the argument of the Transcendental Deduction to the effect that “the conditions of possibility of experience are the conditions of possibility of the object of experience” (cf. above, ch. 6, p. 159). I will not dwell on this point. What interests me about the third Analogy is more specifically

Now, this conclusion is *prima facie* completely implausible. It is simply not true, one might object, that I perceive my desk and my chair as simultaneously existing only if I suppose a relation of interaction between them, and it is also not true that I perceive the earth and the moon as coexisting only if I suppose reciprocal influence between them. The objection seems only too obvious. However, it might be overcome if we remember that there is originally nothing more to the pure concept of cause than “the concept of an object, by means of which its intuition is regarded as *determined* with regard to . . . the logical function of a hypothetical judgment” (B128). Thus by “interaction” (namely reciprocal causal action), Kant means nothing other than the relation between the states of one (relatively permanent) substance and the states of another, such that they can be regarded as determined with regard to the logical function of a hypothetical judgment whose reciprocal converse (the consequent taking the place of the antecedent, and conversely) is also taken to be true. What Kant is saying is that interpreting two successively apprehended states, say A and B, as simultaneously existing states of objects, is thinking something like this: “If X (recognized under concept A) is part of the present whole of my experience, then Y (recognized under concept B) is part of the same whole. And if Y (recognized under concept A) is part of the whole of my present experience, then X (recognized under concept B) is part of the same whole.” What we represent to ourselves as the simultaneity of things in space is then nothing other than the sensible (temporal) form, that is, the mode of ordering individuals in time, resulting from a synthesis guided by the capacity to analyze according to the discursive form of a hypothetical judgment whose reciprocal converse is also believed to be true. In accordance with this discursive form, asserting the presence (existence, *Dasein*) of one of the objects perceived is represented as a sufficient condition for asserting the presence of the other, and conversely the presence of the latter is reflected as a sufficient condition for asserting the presence of the former. Which specific determinations condition one another (i.e. specifically what conditions what), we do not know. We shall acquire such determinate cognition only by means of the indefinite, never completed process of corrections and specifications of our discursive judgments in actual experience. Nevertheless, Kant’s point is that

the relation, in Kant’s argument, between the respective roles of the logical form of disjunctive judgment and that of hypothetical judgment, both of which, I maintain, play a role (the latter more directly than the former) in our ordering appearances in such a way that we experience their objective simultaneity.

this process finds its initial impulse in the mere consciousness of the simultaneous existence of things in space, because such consciousness itself already depends on a synthesis of sensible manifolds guided by our capacity to judge, namely, a synthesis oriented toward reflection according to the form of hypothetical judgments.²⁵

If this is correct, objects are thus individuated in space and time by their reciprocal interaction, and concepts of objects thus individuated are concepts of relational properties. But this means that the empirical-cognitive use of the form of disjunctive judgment, by means of which we think of objects in nature as falling under a unified scale of genera and species, is mediated by that of the form of hypothetical judgment, by means of which we individuate objects by determining their universal interaction in one space and one time. This is why I said earlier that the category of community is the most complex of all. It cannot be understood except under the presupposition of the other relational categories, and thus under the presupposition of the empirical use of the logical forms they depend upon. I submit that this is why the third category of relation has two names: *Wechselwirkung* (reciprocal action, where the emphasis is on the relation of causal interaction) and *Gemeinschaft* (community, where the emphasis is on objects' belonging

²⁵ Note that Kant's reasoning here, just like his argument in the Second Analogy, displays a complex web of interdependence between subjective and objective temporality. On the one hand, awareness of the irreversibility or reversibility (order-determinateness or order-indifference) of the subjective succession of representations is all that perceiving (experiencing) the objective temporal order of appearances amounts to. So, the perception of objective temporal order depends on a specific feature of the subjective succession of representations. But on the other hand, what generates our consciousness of such a feature of the subjective succession just is our act of relating our representations to an intentional object (an object they are the representation of). This is because relating our representations to objects is attempting to reflect objects under concepts according to the logical forms of categorical, hypothetical, and disjunctive judgment, and this in turn is what generates – depending on what is given to our senses – our awareness of the irreversibility of the subjective succession in case the pattern that emerges is that of a permanent object whose states change, or the reversibility of the subjective succession in case the pattern that emerges is that of several coexisting permanent objects whose states are interrelated. So, striving to relate representations to objects is what generates the awareness of the reversibility or irreversibility of the subjective succession, and this in turn just is what our awareness of the objective temporal order (succession or simultaneity of states of things) amounts to. Thus Kant's Analogies of Experience should be understood as being essentially an explanation of how we relate representations to objects in general: an explanation of intentionality (the directedness of representations, their property of being representations of something), and as a result, a theory of what makes it possible to apply concepts such as those of causal connection and causal interaction to the objects of an empirical science of nature.

to one space, thus to one world-whole, and under one logical space of concepts).²⁶

Concluding remarks

Kant's logic typically comes under heavy attack, on two main grounds. First, it is suspiciously psychologistic. Second, it is caught within the narrow bounds of an Aristotelian model of predication and syllogistic inference, a model relegated to irrelevance by Fregean/Russellian extensional logic. However, in the light of the use Kant makes of his "logical functions of judgment" for solving the problems he addresses in the critical system, I would like to suggest that the charges of psychologism and archaism perhaps cancel each other. Because what Kant calls "pure general" or "formal" logic is exclusively concerned with the "universal rules of the understanding," and understanding is the faculty of concepts (defined as "universal and reflected representations"), Kant's logical forms of judgment are nothing but forms of concept subordination, and the forms of inference he is concerned with are merely the various ways in which concept subordination (inclusion or exclusion of the extensions of concepts, under an internal or external condition) allows for truth-preserving inference. And because his "pure general logic" is so narrowly defined, it can make a claim to being a description of the forms according to which minds such as ours are capable of universalization of their representations – capable of combining their representations in such a way that they are susceptible to being reflected under concepts and thus related to objects, defined both logically as instances of concepts, and intentionally as what our representations are representations of (the intentional correlate of our representations). None of this makes Kant's "general pure logic" a part of psychology, for logic, as Kant puts it, is concerned not with the way we think, but with the way we should think: the normative rules of concept combination according to which our judgments are testable as to their truth and falsity (cf. A54/B78).²⁷

²⁶ It is striking that in the appendix to the Transcendental Dialectic, when Kant talks of the demand of reason to unify all concepts of natural science under one highest genus, the genus he cites is that of the concept of force (A649/B677), namely precisely that concept he takes to justify, in the Amphiboly of Concepts of Reflection, the anti-Leibnizian point that (empirical) substances are individuated only by their relational properties (see A277/B333).

²⁷ Cf. also *Jäsche Logic*, Einl. 1, AAix, p. 14. And in this volume, ch. 4, pp. 89–91.

I pointed out earlier that in his explanation of logical forms of judgment – especially the form of disjunctive judgment – Kant gives pride of place to an extensional consideration of concepts and concept subordinations, that is, to the consideration of the classes or multiplicities (*Mengen*) of objects thought under concepts. This is because his main concern is to elucidate the ways in which forms of concept subordination are also forms according to which individual objects are subsumed under concepts, and thus extensions of concepts are constituted in the first place. And this in turn is related to the role Kant assigns to forms of intuition (space and time) as the forms according to which objects are individuated, distinguished from one another and brought together, “synthesized” so that they become susceptible to being reflected under concepts. Examining and evaluating Kant’s notion of a form of intuition is beyond the limits of this chapter, as is examining Kant’s account of the synthetic a priori character of mathematics and its role in empirical science. Nevertheless, in light of my examination of Kant’s logical form of disjunctive judgment and its relation to the category of community, I suggest that we should be attentive to the ways in which the notion of an a priori form of intuition is meant to account for an original capacity to represent (anticipate, generate) homogeneous multiplicities (multiplicities of objects thought under the same concept) just as Kant’s table of logical functions is meant to account for an original capacity to form universal concepts. Kant did not anticipate logical or scientific revolutions to come, and certainly we have reason to wish he had been more circumspect in his remarks on Aristotelian logic, Euclidean geometry, or Newtonian science. But what he did provide was a striking model of how elementary functions of minds such as ours – functions of concept formation and functions of object-individuation – might account for the unity of our unsophisticated, everyday perceptual world, and our sophisticated, scientific worldview.

He argued, moreover, that these same elementary functions, when related not to sensations, but to impulses and desires, are capacities to develop a moral standpoint (*Critique of Practical Reason*); and that both moral and theoretical standpoint are ultimately rooted in the peculiar nature of the living, pleasure-seeking, purposeful beings we are (*Critique of Judgment*).²⁸ All three *Critiques* thus give us a view of human beings as having a peculiar capacity to develop what we might call a standpoint on

²⁸ See chs. 9 and 10 in this volume.

the whole: a standpoint whose elementary discursive form is the form of disjunctive judgment and the grounding concept, that of community.

Just a few more words, before I close, about this concept of “community” and its further destiny in the critical system. In the first version of the Third Analogy, after developing his argument to the effect that substances are perceived as simultaneously existing only if they are in relations of universal interaction, Kant notes that our own body is the mediator for our perception of the simultaneous existence of other bodies, or physical substances:

From our experience it is easy to notice that only continuous influence in all places in space can lead our sense from one object to another, that the light that plays between our eyes and the heavenly bodies effects a mediate community between us and the latter and thereby proves the simultaneity of the latter, and that we cannot empirically alter any place (perceive this alteration) without matter everywhere making the perception of our position possible; and only by means of its reciprocal influence can it establish their simultaneity and thereby the coexistence of even the most distant objects (though only mediately). (A213/B260)²⁹

Because of this mediating role of our sensing body in our perception of the community of material substances, the community of material substances is also a community of our respective standpoints (the respective standpoints of empirically given human beings located in space) on material substances, and on the world as a whole. Now, in the third *Critique* – the *Critique of the Power of Judgment* – Kant makes it one of the grounding maxims of Enlightenment, that we should strive to think “from the standpoint of everybody else.” And he grounds our capacity so to think in what he calls a *gemeinschaftlicher Sinn*, a common sense or sense of community, namely the capacity to develop a common standpoint on the whole (whether a common epistemic standpoint on the whole of objectively existing things, or a common normative/moral standpoint on the whole of interacting human beings). This *gemeinschaftlicher Sinn*, or common sense, consists in our capacity to use imagination and understanding in such a way that each enhances the other in striving for a universal standpoint, albeit one premised on each of the particular standpoints we initially hold.³⁰

²⁹ On Kant’s view of the relation between self-consciousness, our consciousness of our own body and our consciousness of a world of material objects in general, see my “Self-consciousness and consciousness of one’s own body: variations on a Kantian theme.” Forthcoming in *Philosophical Topics*.

³⁰ See *Critique of the Power of Judgment*, AAv, p. 293. Guyer and Mathews translate *gemeinschaftlicher Sinn* as “communal sense.”

We are more used to reading the critical system under the dominance of the concept of cause: from Kant's response to Hume's skeptical doubt in the first *Critique*, to his elaboration of the concept of free agency in the second *Critique*. And certainly, there is a lot to say for this line of reading. But I would like to suggest that from the community of substances in the first *Critique*, to the community of standpoints on substances, also in the first *Critique*, to the community of rational agents in the second *Critique*, to the *gemeinschaftlicher Sinn* of the third *Critique*, there is another line of reading, one that does not contradict the previous one but integrates it into a more complete view of Kant's philosophical project: relating, as he says, all cognition to "the essential purposes of human reason" (A839/B867).

Finally, I submit that it is also from the standpoint of this concept and its development throughout the critical system that we can best evaluate Kant's relation to his German Idealist successors. It is quite striking, for instance, that in Hegel's *Phenomenology of Spirit* the progress from "Sense-Certainty" to "Perception," to "Force and Understanding" (the first three chapters of the *Phenomenology*) is one where we gradually become aware that only under a representation of universal interaction is the identification of any individual object of sense-perception possible for a consciousness such as ours. Hegel thus appears to espouse just the kind of reasoning I have argued is Kant's own in the Third Analogy. And like Kant, he goes on to examine what relation between the conscious subjects themselves is involved in the cognitive process just described (fourth chapter of the *Phenomenology*, "Self-Consciousness," and the dialectic of desire and recognition). This being said, there are of course major differences between the ways each of them proceeds from there (not to mention the differences in the ways they arrive there). Where Kant thinks that the same discursive (intellectual) functions by means of which we represent the community of spatiotemporal substances can also serve to think a purely noumenal (a-temporal and non-spatial) region of being to which we belong as moral agents, Hegel, reasonably enough, denounces the hypostatization of an "inverted world" (end of the chapter on "Force and Understanding").³¹ On the other hand, where Kant insists that our epistemic standpoint on the whole is irretrievably limited by the given spatiotemporal conditions of our human

³¹ Hegel's *Phenomenology of Spirit*, trans. A. V. Miller (Oxford: Oxford University Press, 1977), pp. 79–105; G. W. F. Hegel, *Phänomenologie des Geistes*, ed. Wolfgang Bonsiepen und Reinhard Heede, in *Gesammelte Werke*, vol. ix (1980), pp. 82–102.

sensory knowledge, Hegel, unreasonably enough, strives to achieve a standpoint that would amount to “the presentation of God, as he is in his eternal essence before the creation of nature and of a finite spirit.”³² It is perhaps possible to interpret Hegel’s grandiose statement as gesturing toward nothing more than some universal underlying logic of all concept formation and correction.³³ Just as it is perhaps possible to interpret Kant’s talk of a “noumenal realm” as gesturing toward nothing more than our moral use of reason in achieving a fully autonomous determination of action. Perhaps we can come to this kind of reasonable reconstruction in both cases. Even so, I would suggest that the resistance Hegel opposes to Kant’s “noumenal realm,” on the one hand, and the resistance Kant opposes, preemptively as it were, to any ambition remotely resembling Hegel’s logic of “absolute knowledge,” are, from each of them respectively, a lasting legacy.³⁴

³² Hegel’s *Science of Logic*, trans A. V. Miller (New York: Humanities Press, 1976), p. 50; G. W. F. Hegel, *Wissenschaft der Logik*. vol. 1: *Die objective Logik*, ed. Friedrich Hogemann and Walter Jaeschke, in *Gesammelte Werke*, xi (1978), p. 21.

³³ This kind of reading is defended by Robert B. Brandom, “Some pragmatic themes in Hegel’s idealism,” *European Journal of Philosophy* (1999), pp. 164–89; repr. as ch. 7 in *Tales of the Mighty Dead: Historical Essays in the Metaphysics of Intentionality* (Cambridge, Mass.: Harvard University Press, 2002).

³⁴ On this point, see my “Point of view of man or knowledge of God: Kant and Hegel on concept, judgment and reason.”

PART III

THE HUMAN STANDPOINT IN THE
CRITICAL SYSTEM

THE TRANSCENDENTAL IDEAL AND THE UNITY OF THE CRITICAL SYSTEM

Kant starts the exposition of the Transcendental Ideal, in the *Critique of Pure Reason*, by stating what he calls the “principle of complete determination” in the following terms: “Every *thing* . . . as to its *possibility* . . . stands under the principle of *complete* determination [*durchgängigen Bestimmung*], according to which, among *all possible* predicates of *things*, insofar as they are compared with their opposites, one must apply to it” (A572/B600). This principle is susceptible to different interpretations. I suggest it has, according to Kant, a legitimate, critical interpretation, which emerges from the Transcendental Analytic as a whole.¹ I shall consider that interpretation in a moment. But it also has an interpretation in the context of rational metaphysics, from which Kant inherits the principle in the first place.² In this context, “complete determination” means complete determination by the intellect alone. As it gradually

¹ Thus at the end of section two of the Transcendental Ideal, to the question: “How does reason come to regard all the possibility of things as derived from a single possibility, namely that of the highest reality, and even to presuppose these possibilities as contained in a particular original being?” Kant answers by sending us back to “the discussions of the Transcendental Analytic themselves” (A581/B609). In what follows I shall attempt to outline what I take to be the most important features of those discussions for understanding what the critical version of the “principle of complete determination” might be.

² See Alexander Gottlieb Baumgarten, *Metaphysica* (Halle, 1739, repr. in Kant, AAXVII), §148; Christian Wolff, *Philosophia Prima sive Ontologia* (Frankfurt-am-Main and Leipzig, 1736); repr. in Christian Wolff, *Gesammelte Werke*, II-3, pp. 187–9.

appears while we progress through section two of the Transcendental Ideal, this interpretation is one to which reason, according to Kant, is inevitably drawn, and which leads to the dialectical reasoning that Kant calls the “Transcendental Ideal,”³ in accordance with the illusory principle stated at the beginning of the Transcendental Dialectic: “If the conditioned is given, then the totality of its conditions is also given.” In this case: if limited realities are given, then the absolutely unlimited *totum realitatis* is also given. This *totum realitatis* is then posited as a distinct being, the ground of all finite reality: the *ens realissimum* of rational theology.⁴

The Transcendental Ideal is not the first instance in the *Critique of Pure Reason* where Kant criticizes the rationalist notion of a *totum realitatis*, an unlimited whole of reality. One memorable previous occasion for such criticism was the appendix to the Transcendental Analytic, On the Amphiboly of Concepts of Reflection, and more specifically, the analysis of the concepts of reflection: “matter, form.” The rationalist concept of a whole of reality, or unbounded reality, was then cited as a typical instance of the error of intellectualist philosophers, according to which the matter of thought (positive determinations or realities, thought by concepts) is prior to its form (relations of these determinations according to the principle of contradiction). “In respect to things in general, unbounded reality was viewed as the matter of all possibility, but its limitation (negation) as that form through which one thing is distinguished from another in accordance with transcendental concepts”

³ Kant sometimes calls “Transcendental Ideal” the reasoning that leads to the representation and hypostatization (positing as an existing object) of an *ens realissimum* (see A340/B398). But he more often calls that representation itself, as an archetype and source of all reality, “the Ideal of pure reason”: see A568/B596, A569/B597, A574/B602. Here I am referring to the Transcendental Ideal in the first sense. Later in this chapter the expression “Transcendental Ideal” will mostly be used in the second sense.

⁴ On the steps of the illusion, cf. A582–3/B610–11. On the characterization of the dialectical reasoning called “Ideal of pure reason,” cf. A340/B398. For a careful analysis of the steps of Kant’s argument in section two of the Transcendental Ideal, see Michelle Grier, *Kant’s Doctrine of Transcendental Illusion* (Cambridge: Cambridge University Press, 2001), pp. 230–51. In the course of her analysis, Michelle Grier subjects to acute scrutiny what I call, in the paper that was the original version of this chapter, the “critical version” of the principle of complete determination and the “critical reduction” of the rationalist notion of an *ens realissimum* (see Béatrice Longuenesse, “The Transcendental Ideal, and the unity of the critical system,” *Proceedings of the Eighth International Kant Congress, Milwaukee 1995* [Milwaukee: Marquette University Press, 1995], 1, pp. 521–37. And Grier, *Transcendental Illusion*, pp. 237–48). I think her criticisms are often well taken, and I have tried accordingly to clarify my view in revising the paper for this chapter, which on several points extensively revises the earlier paper. See also my review of her book in *Mind*, vol. 112, no. 448 (2003), pp. 718–24, esp. p. 723.

(A267/B323, translation modified).⁵ To this conception, Kant then opposed his own conception of the primacy of form over matter: the forms of sensibility being a priori and making possible the consciousness of sensations, and therefore the matter of appearances as that which corresponds to sensation (cf. A20/B34); the forms of thought being a priori and making possible concepts and objects recognized or thought under these concepts.⁶

Now, relating Kant's criticism of the Transcendental Ideal in the Transcendental Dialectic to his criticism of the concept of the unbounded whole of reality in the Amphiboly of Concepts of Reflection is interesting for at least two reasons. First, it gives us a route to the critical reduction of the rationalist notion of a whole of reality, by sending us back to the exposition of the forms of sensibility and understanding and their respective relation to their matter, according to the Transcendental Analytic. But second, and less generally acknowledged, it also sends us forward, to the analysis of matter and form of thought in the First Introduction to the third *Critique*.⁷ Indeed, I want to suggest that the critical version of the concepts of reflection "matter, form" expounded in the Amphiboly chapter of the first *Critique* finds its ultimate development in the concepts of matter and form (matter as "logical genus" and its complete specification in the form of a system) which guide reflective judgment according to the First Introduction to the third *Critique*.

My goal in this chapter is therefore threefold.

First, I propose to sort out the legitimate (critical) and illegitimate (intellectualist) uses of the "principle of complete determination" in section two of the Transcendental Ideal. In doing so, I shall be primarily

⁵ Guyer and Wood translate: "In respect to things in general, unbounded reality is regarded as the matter of all possibility . . ." Kant uses the past tense: "Auch *wurde* in Ansehung der Dinge überhaupt . . ." It is important to translate this past tense to make it clear that Kant is describing a view made irrelevant by the critical standpoint he advocates. I should add that in the original version of this paper, I said that in the Amphiboly chapter, Kant denounces the illusion of rationalist metaphysicians (or what he calls "the intellectualist philosopher" – see A367/B323). As Michelle Grier has pointed out to me, the doctrine of illusion belongs in the Transcendental Dialectic, not the Transcendental Analytic. Here we can talk only of an error. It will turn out, from the argument of the Transcendental Dialectic, that this error is itself kept alive by an unavoidable illusion of reason. On this point, see below, esp. pp. 233–4.

⁶ In the Amphiboly, Kant mentions only the primacy of form over matter in the sensible given: the primacy of forms of intuition over sensations and thus appearances (cf. A267–8/B323–4). But I think the point can be extended to the relation between matter and form of thought: when thought is sensibly conditioned, its form is prior to its matter. I shall argue for this in the second part of this chapter. See also *KCJ*, pp. 147–63.

⁷ Cf. *Critique of the Power of Judgment*, First Introduction, AAXx, pp. 211–17. And see below in this chapter, pp. 230–2.

concerned, not so much with Kant's account of the illusion of reason which he calls the "transcendental ideal," as with what I have called its "critical reduction": what the principle of complete determination and the related notion of a whole of reality amount to, once they are disentangled from the rationalist illusion.

Second, I intend to compare the concepts of *totum realitatis* and *ens realissimum* expounded in section two of the Transcendental Dialectic, with the criticism of those same concepts expounded in the Amphiboly of Concepts of Reflection.

Third, and most importantly, I shall suggest that the analysis and critical reduction of the transcendental ideal opens the way to an articulation of reflection and determination in cognition which puts the first *Critique* in closer connection to the third than is generally recognized, and therefore puts both first and third *Critiques* beyond the commonly assumed strict dichotomy between what Kant calls, in the third *Critique*, "determinative" and "reflective" uses of judgment. This has important consequences, which I shall briefly address at the end of this chapter.

There is on my part an underlying conviction guiding the path I propose to take, from Kant's criticism of the transcendental ideal, back to his criticism of the intellectualist conception of the unbounded whole of reality, in the Amphiboly of Concepts of Reflection, and forward again to the Introduction to the Third Critique. My conviction is that the transcendental ideal proper (the pure concept of an *ens realissimum* whose origin Kant traces back to an unavoidable and, once properly recognized, ultimately beneficial illusion of reason) plays a less indispensable role than Kant claims it does, by the terms of his own analyses, if we follow these analyses through each of the steps I just outlined. I leave it to the reader to judge if my conviction is adequately supported.

Kant's criticism of the Transcendental Ideal

At the beginning of section two of the Transcendental Ideal, Kant contrasts the "determinability" of a concept and the "complete determination" of an individual thing. The notion of determination here at work is explained in the *Jäsche Logic*, §15, where determination is opposed to abstraction:

Through continued logical abstraction, higher and higher concepts arise, just as through logical determination, on the other hand, lower

and lower concepts arise. The greatest possible abstraction yields the highest or most abstract concept – that from which no determination can be further thought away. The most fully achieved determination would yield a *thoroughly determinate* concept [*conceptum omnimodo determinatum*] i.e., one to which no further determination might be added in thought.

Note. Since only individual things, or individuals, are thoroughly determinate, there can be thoroughly determinate cognition only as *intuitions*, but not as *concepts*; with respect to the latter, logical determination can never be regarded as completed.⁸

Determination here clearly means: specification. To determine a concept is to produce a specification of it by adding to the initial concept a mark that is not analytically contained in it. With respect to such a mark our initial concept is indeterminate, it can be determined (specified) by predicating of it either the affirmation, or the negation of an additional mark: animals are either rational or non-rational, human beings are either Athenians or Barbarians (non-Athenians), and so on. In this sense, it is quite clear that only representations of individual things are fully determinate, namely not further determinable or specifiable. For a Leibnizian, such a thoroughly determined representation is an *ultima species*, an ultimately specified concept. For Kant, it can only be an intuition. The only fully determinate (not further determinable, i.e. specifiable) representation is an intuition. Correspondingly, objects are fully determinate, i.e. singular objects, only insofar as they are objects of intuition.

It may seem strange to say that only intuitions are fully determinate, since, as is well known, for Kant an object which would be “merely” an object of intuition would remain “indeterminate” (appearances are “indeterminate” objects of empirical intuition, they are determined as objects, or *phenomena*, only by being thought under concepts: cf. A20/B34; A249). This ambiguity is due to Kant’s ambivalent relation to the rationalist tradition: on the one hand he maintains, against the rationalists, that only sensible intuitions, not concepts, are singular. Therefore, if determination is specification, only sensible intuitions are fully determinate. But on the other hand, it remains true that specification is a conceptual operation. We determinately know an object only by

⁸ *Jäsche Logic*, AAix, p.99. What Guyer and Wood, for the *Critique of Pure Reason*, and J. Michael Young, for the *Jäsche Logic*, translate as “thoroughgoing determination” (*omnimodo determinatio, durchgängige Bestimmung*), is what I also call, in the main text, “complete determination.” Both translations are correct, but the latter is philosophically more familiar.

concepts: to determine an object for the intuition is to know it under concepts, and we know it as determinately as our concepts are specified. Now, this twofold meaning of “determinate” (singular, therefore intuitive; but determined by concepts) accounts for Kant’s adoption of the “principle of complete determination” which he inherits from the Leibnizian rationalists, and at the same time accounts for the peculiar meaning he assigns to this principle in the context of the *Transcendental Analytic*.

Kant formulates this principle in the terms I quoted above: it says, of every singular thing, that “among *all possible* predicates of *things*, insofar as they are compared with their opposites, one must apply to it” (A572/B600). Now, such a principle seems to make no sense at all unless one supposes that one can indeed think, i.e. presuppose as given, “all possible predicates [and] their opposites.” Without such a presupposition, one is simply left with the logical principle of contradiction on the one hand (it is not possible to attribute to one and the same thing, considered under the same respect, a predicate and the negation of that predicate); and with the principle of excluded middle on the other hand (given a pair of contradictory predicates, one or the other must be predicated of a thing, there is no third alternative). What the principle of complete determination adds to these two logical principles is precisely the reference to the totality of possible predicates. Kant indicates quite clearly this difference between the merely logical principles of contradiction and excluded middle, and the principle of complete determination: “through this proposition predicates are not merely compared logically with one another, but the thing itself is compared transcendently with the sum total of all possible predicates” (A573/B601, *emphasis mine*).

But why should one admit such a principle, if logic does not demand it? Why should we not be content with admitting the principles of contradiction and excluded middle as rules for relating concepts and thus for further and further determining our concepts of objects? For a rationalist of the Leibnizian-Wolffian school, the answer is that the principle of complete determination adds to these logical principles the metaphysical principle that states how objects are individuated. Each is a unique combination of affirmations and negations of essential determinations or perfections in the divine understanding. Moreover, this is how they are determined to exist, or on the contrary, to remain mere possible components in unactualized possible worlds, according to the principle of fitness, i.e. the wisdom of God’s choice. But Kant does not consider that objects are individuated by complete determination

accessible to pure intellect. He expressly denies this. Objects are given in space and time and individuated as objects of sensible intuition. So what is his reason for affirming a “principle of complete determination” such as this? Kant’s answer to this question in the *Transcendental Analytic* has two components. The first is the role assigned to infinite judgment in the table of logical functions of judgment. The second is the role of the unity of apperception, and ultimately, of the unity of experience, in the *Transcendental Deduction of the Categories*

So, very briefly on each of these two points.

(1) An infinite judgment, for Kant, is a judgment in which I affirm of a subject-concept a predicate that is itself the negation of a predicate: “A is not-B.” In doing so, I locate the subject-concept in the unlimited sphere of all possible beings, to the exclusion of the sphere of the negated predicate. Such a judgment, says Kant, does not have to be considered in general logic, which “abstracts from all content of the predicate (even if it is negative)” (A72/B97). In transcendental logic, on the contrary, it is important to consider those judgments which take into consideration an infinite logical extension (they locate the subject-concept in the “infinite sphere of all possible beings”), while being “limiting with regard to the content of cognition” (A73/B98): the only determinate information provided by the predicate is the exclusion of the subject-concept from the determinate sphere of a specific concept. The exclusion of infinite judgment from general logic and the claim of its usefulness “in the field of pure *a priori* cognition” exactly parallels the restriction of the principle of complete determination to the field of transcendental philosophy. Indeed, some *Reflexionen* call infinite judgment “judgment of complete determination.”⁹

In the *Transcendental Ideal*, however, Kant associates complete determination not with the form of infinite judgment, but with the form of disjunctive judgment as the potential major premise of a disjunctive syllogism. And this certainly makes sense: left to itself, the infinite judgment would leave almost entirely indeterminate, unspecified, the infinite sphere to which the sphere of the subject-concept is said to belong. But on the other hand, disjunctive syllogism can function as the ground for complete determination only if its disjunctive major premise states the complete division of the infinite sphere of a concept whose division would yield all concepts of possible beings: the logical

⁹ Cf. *Reflexion* 3063, AAxvi, p. 636.

form of complete determination has to be jointly grounded in the forms of infinite and disjunctive judgments.

(2) Now, from the standpoint of the Transcendental Analytic, what makes possible the use of infinite-cum-disjunctive judgment, i.e. the indefinitely repeated endeavor to determine any subject-concept by its inclusion in, or exclusion from, the sphere of all other known concepts of things, is the unity of apperception, as described in the Transcendental Deduction of the Categories: only if one and the same act of comparison and reflection and before this, one and the same act of synthesis achieved in order to compare and reflect, organizes our perceptions, can all predicates be compared to all other predicates, and therefore can concepts of objects be ever further specified. This is how the unity of apperception gives rise to the unity of experience: the unified act of synthesis and analysis (comparison and reflection) is what connects objects in one space and one time, and reflects them under concepts. The infinite sphere whose division would yield all concepts of possible entities, in which infinite judgment thinks the object thought under its subject-concept is then the infinite sphere of the concept: “object given in space and time,” that is to say “object of experience.” The form of disjunctive judgment is the logical form according to which this infinite sphere is determined.

So this is how Kant can affirm on his own, critical grounds a “principle of complete determination”: any singular object of experience is fully determinate by virtue of its being comparable to every other possible object, i.e. by virtue of its belonging in the infinite sphere of the concept: “object of experience,” in which its concept can be related to all other concepts either positively or negatively. Contrary to what was the case for rationalist metaphysics, it is not necessary to suppose that the totality of possible predicates be actually given (in God’s infinite understanding) to assert that every thing is either positively or negatively determined in relation to every possible predicate. It is sufficient to have shown that the form of our understanding is such that necessarily, any determination of an individual thing (namely, any mark of the concept under which we cognize it) determines it positively or negatively relative to all the concepts defining the possible subspheres of the one infinite sphere of the concept: “object of possible experience,” or “object given in space and time.”

If this is so, the principle of complete determination Kant formulates at the beginning of section two of the Transcendental Ideal (A571–2/B600–1) is not a new principle, in the context of the first *Critique*. It is a

principle that Kant could have given as a corollary of the principle of all synthetic judgments: “the conditions of the possibility of experience are the conditions of the possibility of the objects of experience” (cf. A111, A158/B197).¹⁰ By defining complete determination in terms of concepts alone, rationalist metaphysicians have run away with an illusory version of a perfectly sound principle of cognition.

The same can be said of the idea of the sum total of all possibility, which is presupposed in the statement of the principle; and also of the idea of the sum total of all reality, *omnitudo realitatis*, which depends on the first. This is how.

We already saw how the idea of a sum total of all possibilities (the totality of all possible predicates) is contained in the very statement of the principle of complete determination, and is precisely what makes it different from the logical principles of contradiction and excluded middle. But what can we understand by “possible predicate”? According to the Transcendental Analytic, a possible predicate is a predicate that “agrees with the formal conditions of experience (in accordance with intuition and concepts)” (from the Postulates of Empirical Thought in General, A218/B265). If this is so, comparing the predicates of an individual thing with the sum total of possible predicates is comparing them with all the predicates which agree (1) with the forms of intuition, (2) with the universal relations made possible in these forms by the categories and their schemata, and (3) with the present state of our empirical

¹⁰ What I mean by this is that if the principle (“the conditions of the possibility of experience are the conditions of the possibility of the objects of experience”) is true, and if making use of the forms of infinite and disjunctive judgment is among the conditions of possibility of experience (as I recalled earlier in this chapter, see pp. 217–18), then it follows that, by virtue of these forms, every object falls under, or is excluded from, the sphere of every possible predicate, and thus the principle of complete determination as defined by Kant in section two of the Transcendental Ideal is true of all objects of experience (i.e. all things as appearances). In her discussion of the original version of this chapter, Michelle Grier criticizes me for saying (according to her) that “the principle of complete determination is not a ‘new’ principle at all, but essentially reiterates the already established doctrine that the ‘conditions of the possibility of experience are the conditions of the possibility of the objects of experience’” (see Grier, *Transcendental Illusion*, p. 239). But I do not take the two principles to be identical. I only take the one (the principle of complete determination) to follow from the other (the principle of the possibility of experience) once it is understood that the latter includes the role of infinite and disjunctive judgment in reflecting objects under concepts and thus coming up with representations of individuated objects for our intuitions. Moreover, it remains of course true that this version of the principle is different from the illusory, purely intellectual interpretation of it. Michelle Grier’s concern, in ch. 7 of her book, is mainly with the latter; my concern is mainly with clarifying what a critical version of the principle of complete determination might be.

concepts. Now, we also know from the Transcendental Analytic that among these empirical concepts, some are “positive determinations” or realities, some are negative determinations, or negations. Realities are “what corresponds to sensation,” negations are what corresponds to the absence of a sensation, or “a concept of the absence of an object” (see the schemata of the categories of quality, A143/B182; also the table of nothing at the end of the Analytic, A291/B347). Because of his relating reality to sensation, and negation to the absence of sensation, Kant considers that positive determinations, or realities, are prior to negative determinations, or negations, which in fact are meaningless if one does not have a prior concept of the corresponding positive determination. This being so, saying that an individual thing is fully determined if it is compared to the sum total of possible predicates can be reduced to saying that it is fully determined if it is compared to the sum total of possible positive predicates, or realities. From this, the comparison with negative predicates analytically follows. Therefore, there is again a perfectly legitimate, critical reading for the move from the principle of complete determination to the supposition of a sum total of all possibilities, and from there to the supposition of a sum total of all realities, or *totum realitatis*.

Except, of course, in the critical context this *totum realitatis* remains a mere idea: there is no given totality of positive predicates, the mere limitation of which would give us the complete determination of each singular thing. Predicates are not given once and for all in God’s infinite understanding, but generated by the “logical use of the (human) understanding” reflecting upon the sensible given. In other words, they are generated by what Kant calls, at the end of section two of the Transcendental Ideal, “the distributive use of the understanding in empirical knowledge” (A582/B610). So, from the standpoint of the Transcendental Analytic, the representation of a *totum realitatis* as the complete whole of positive determinations of things can only be a goal which reason sets to the understanding for the improvement of its knowledge, not an actually given whole. The illusion of rational metaphysics is precisely to think that such a whole is actually given in pure intellect alone, rather than having to be generated by the sensibly conditioned understanding.

On the other hand, even from the critical standpoint, reality, as “that which corresponds to sensation,” does indeed have to be presupposed as given as a whole in space and time. In other words, the distributive use of the understanding in experience does presuppose some collective whole of experience and, corresponding to it, the unanalyzed whole of what is given in space and time. Just as concepts of spatial and temporal

properties of objects presuppose space and time as formal intuitions, "infinite given magnitudes," it seems that realities as positive determinations of things which are objects of empirical concepts presuppose the whole of reality as that which fills space and time. Kant says precisely this, it seems to me, when he explains why reason not only forms the idea of a *totum realitatis*, but moreover forms the erroneous belief that this *totum* actually exists.¹¹ The legitimate ground for this belief, he says, is that in every one of our efforts to cognize empirical realities or empirical positive predicates of things, some *totum realitatis* must indeed be presupposed as existing (although Kant does not mention this particular point, I suggest he may have in mind the fact that the principle of the permanence of substance, for instance, would make no sense without such a presupposition). But one should not confuse this experientially presupposed whole of reality with a discursively thought whole of realities or positive determinations.

This distinction is clearly made in the following passage from the end of section two of the Transcendental Ideal:

an object of sense can be completely determined only if it is compared with all the predicates of appearance and is represented through them either affirmatively or negatively. (A581/B609)

This, I take it, relates every positive predicate of empirical things to the distributive use of the understanding in experience, and therefore, the merely distributive, not collective, totality of discursively reflected positive determinations. Then Kant goes on:

But because that which constitutes the thing itself (in appearance), namely the real, has to be given, without which it could not be conceived at all, but that in which the real in all appearances is given is the one all-encompassing experience, the material for the possibility of all objects of sense has to be presupposed as given in one sum total [*als in einem Inbegriffe*]; and all possibility of empirical objects, their difference from one another and their thoroughgoing determination, can rest only on the limitation [*Einschränkung*] of this sum total. Now in fact no other objects except those of sense can be given to us, and they can be given nowhere except in the context of a possible experience; consequently, nothing is an object *for us* unless it presupposes the sum total of all empirical reality [*den Inbegriff aller empirischen Realität*] as condition of its possibility. (A582/B610)

¹¹ Cf. A581/B609.

This time, Kant states that every empirical thing, as given in intuition, is related in experience to a presupposed whole of reality. It is just a few lines after this passage that Kant goes on to say that we form the illusory representation of an existing whole of positive determinations or realities because “we dialectically transform the *distributive* unity of the empirical employment of our understanding into the *collective* unity of a whole of experience.” Such a transformation, it seems to me, is the transformation of the never-ending progress of the discursive use of the understanding into the (illusory representation of) a given totality of conceptual determinations of objects of experience. This illusory representation of a “collective whole of realities” is ultimately hypostatized (posited as a distinct being) into the representation of an *ens realissimum*, as the single ground of all reality.¹²

Kant seems to waver between different formulations when he endeavors to lay out the relation between this purely intelligible being and its limitations. On the one hand, he suggests that the relation of the “manifoldness of things” and the “concept of the highest reality” is analogous to that of figures and infinite space (A578/B606). But immediately after that, he corrects the formulation and says that the highest reality is related to the possibility of all things rather as their ground than as their whole (*Inbegriff*) (A579/B607). However one takes it, the relation of the highest being to limited realities is merely the relation of an idea to concepts: the relation of the purely intellectual idea of an *omnitude realitatis*, i.e. totality of positive predicates, to concepts of things in general and their determinations, as limitations (cf. A579/B607).

¹² Kant’s claim, at the end of section two of the Transcendental Ideal, is thus that the only *totum realitatis* whose existence we can meaningfully assert is the whole of reality given to the senses, which we presuppose as a condition for the unity of experience and for the distributive use of the understanding by which realities (particular positive determinations of things) are thought under concepts. This is the only refutation Kant ever gives (without saying that he is giving it) of his own pre-critical proof of the existence of God. That proof is none of the three proofs Kant goes on to criticize in the next sections of the Transcendental Ideal. It rests on the principle that the matter of all possibility has to depend on one single *totum realitatis*, an individual being or *ens realissimum* (see *The Only Possible Argument in Support of a Demonstration of the Existence of God*, in *Theoretical Philosophy*, AAII, pp. 77–81). Kant now says that the relation between a *totum realitatis* and limited realities, if thought by pure concepts, is just this: a relation between an idea and concepts. As a relation between existences, it is nothing over and above the relation between (1) the indeterminate whole of reality presupposed for the distributive use of the understanding in experience, and (2) the determinate limitations of that whole, reflected under concepts of *realities* or positive determinations of things, negations (the absence of positive determinations) and limitations (realities limited in relation to other realities).

This reduction of the purely intellectual relation between *ens realissimum* and limited realities to a relation between an idea and concepts makes it a mere form. Here Kant's analysis complements and develops a theme that was announced as early as the appendix to the *Transcendental Analytic*: the Amphiboly of Concepts of Reflection, to which I shall now turn.

Let me first recapitulate. I have suggested, following an indication by Kant himself (cf. A581/B609), that we can find in the *Transcendental Analytic* the resources for a critical interpretation of the "principle of complete determination" formulated at the beginning of section two of the *Transcendental Ideal*. We can also find the resources for a representation of the *totum realitatis* conditioning the application of the principle that would conform to the restrictions of the use of the understanding in cognition established in the *Transcendental Analytic*. I have suggested that according to this critical interpretation, the whole of reality that grounds the representation of the complete determination of things is the indeterminate whole of reality given in space and time, presupposed in any empirical use of the understanding giving rise to discursively represented *realities* or positive determinations of things (as appearances). However, recognizing that the only existence of such a whole is that of the whole of reality presupposed for the use of the understanding in experience does not do away with the purely intellectual representation of the relation between a discursively thought (conceptual, intellectual) *totum realitatis* and the particular realities or determinations of things. I now propose to compare what Kant says, in the *Transcendental Ideal*, about this intellectual representation, to Kant's criticism of the rationalist *totum realitatis* and *ens realissimum*, in the Amphiboly of Concepts of Reflection.

The Amphiboly of Concepts of Reflection

In the *Transcendental Analytic*, Kant's criticism of the intellectualist philosopher's notion of a whole of reality occurs in the context of Kant's examination of the fourth pair of concepts of reflection: matter, form. To understand the point Kant wants to make, it will be useful to recall what he generally means by "concepts of reflection," and the specific role assigned to the last pair of these concepts.

Kant distinguishes two types of reflection: "logical reflection," which he also calls logical comparison; and "transcendental reflection." Logical reflection is "a mere comparison," where "one completely abstracts from the cognitive power to which the given representations belong"

(A262/B318). Or again: “The concepts can be compared logically without worrying about where their objects belong, whether as *noumena* to the understanding, or as *phenomena* to the sensibility” (A269/B325). This logical reflection, I suggest, is the same as the “logical use of the understanding” which according to the 1770 Inaugural Dissertation was common to all cognition and by which

when a cognition has been given, no matter how, it is regarded either as contained under or as opposed to a characteristic mark common to several cognitions, and that either immediately and directly, as is the case in *judgments*, which lead to a distinct cognition, or *mediately*, as is the case in inferences, which lead to a complete cognition.¹³

It is also the same as the “logical use of the understanding” described in §10 of the Transcendental Analytic, where Kant characterized the understanding as a “capacity to judge” (*Vermögen zu urteilen*) after saying that we form concepts only in order to judge by their means (A68/B93). In the Amphiboly, Kant indicates that this logical reflection or comparison, namely (if I am right in the identifications I just suggested), the logical use of the understanding, is guided by “concepts of reflection” or “concepts of comparison” which correspond respectively to the four headings of the table of judgments: identity and diversity (*Einerleiheit und Verschiedenheit*) for universal and particular judgments; agreement and conflict (*Einstimmung und Widerstreit*) for affirmative and negative judgments; internal and external (*Innere und Äußere*) for categorical and hypothetical judgments; matter and form (*Materie und Form*) for modality of judgments (A262/B318–A268/B324).

I understand these correspondences in the following way. First, identity and difference: we compare objects, or perhaps lower (more specific) concepts, thought under a concept A, to find out whether they are identical or different (*einerlei oder verschieden*) with regard to their being also thought under a concept B; we thus form universal judgments (all As are B) or particular judgments (some As are B, some As are not B). Second, *agreement* and *conflict* (*Einstimmung, Widerstreit*): we compare concepts, as regards their comprehension (the marks which belong to them), to find out whether they are in agreement (As are B) or conflict (As are not B). Third, inner and outer (*Innere, Äußere*): we compare concepts in order to find out whether one of them (say, A) contains in itself (“internally”) the sufficient condition or ground to assert the other

¹³ Inaugural Dissertation, AAII, p. 393.

(categorical judgment: A is B) or whether an additional, “external” condition or ground should be added, in order to ground the attribution of B to A (hypothetical judgment: if C is D, then A is B). Of course in this third case, the situation, from a Kantian point of view, is complicated by the fact that this “internal” or “external” condition for predication may or may not have to take into account the intuition thought under the subject-concept: the categorical, just as the hypothetical judgment, may be analytic or synthetic. But as Kant says repeatedly, logic does not take into account this difference, which concerns the origin and content of the concepts, not the mere form of thought. Similarly, the description of logical reflection in the Amphiboly chapter merely considers the form of judgment and the concepts of reflection, or concepts of comparison, guiding the act of judgment according to each aspect of its form.

Now the point of the Amphiboly chapter is to show that Leibniz confused logical reflection or comparison, as I just characterized it (comparison of concepts to form judgments, whatever the origin of those concepts), with a comparison of objects. Leibniz thought that at least for an infinite understanding, things could be known by concepts alone, and therefore, the concepts or rules for comparison of concepts could be understood as concepts or rules for comparison of things. Things that are identical with respect to all possible predicates were therefore numerically identical. Because no logical conflict, or contradiction, can be thought between two positive determinations or realities thought by concepts alone, no conflict could be thought between two positive determinations or realities in things. By pure concepts, a thing could be known exhaustively through its intrinsic properties: predication under an external condition could be reduced to predication under internal conditions; indeed these internal conditions were marks analytically contained in the subject-concept. In opposition to all of this, Kant maintains that things cannot be cognized by concepts alone. They are given in space and time, the forms of our sensibility. Their individual representation or intuition is radically distinct from any concept, although concepts are of course formed by “comparison, reflection, and abstraction” from what is given to sensible intuition. Therefore, logical reflection must be complemented by transcendental reflection or transcendental topic, which distinguishes between the comparison of concepts and the comparison of objects given in space and time. Notice, though, that transcendental reflection inherits its concepts of comparison, or rules for the comparison of things in space and time, from logical reflection. In transcendental reflection, one wonders what it

means for things, as opposed to mere concepts, to be identical or different, in agreement or conflict, internally or externally determined. In other words, objects are still compared through the grid of our discursive understanding and its concepts of comparison or rules for comparison. But the purpose of transcendental reflection is precisely to show that these rules have to acquire a different use when they are applied to objects given in space and time.

This is where matter and form come into the picture. These two concepts, says Kant, “ground all other reflection, so inseparably are they bound up with every use of the understanding” (A266/B322). This gives them a status different from that of other concepts of reflection. They are second-order concepts, concepts by means of which we are asked to reflect upon the act of comparison itself: every act of comparison has a matter (the determinable, what is “given” in thought) and a form (the determination, the processing of what is given in thought). Kant thus makes a very un-Aristotelian use of these Aristotelian concepts. Matter and form are matter and form not of things, but of thought. Indeed, this is how Kant uses these concepts consistently in the *Jäsche Logic*:

The matter of concepts is the *object*, their form *universality*.¹⁴

The *matter* of the judgment consists in the given representations that are combined in the unity of consciousness in the judgment, the *form* in the determination of the way that the various representations belong, as such, to one consciousness.¹⁵

The *matter* of inferences of reason consists in the antecedent propositions or premises, the *form* in the conclusion insofar as it contains the *consequentia*.¹⁶

¹⁴ *Jäsche Logic*, §2, AAix, p. 91.

¹⁵ *Ibid.*, §18, AAx, p. 101.

¹⁶ *Ibid.*, §59, AAix, p. 121. We already saw that by *consequentia* (or *Konsequenz* in German) Kant means the relation between subject and predicate, antecedent and consequent, concept and its divisions, in a categorical, hypothetical, or disjunctive judgment. We also saw that it is the obtaining of the *consequentia*, not the independent truth-value of the components of a proposition or an inference, that make the proposition true or the inference valid (see above, ch. 4, pp. 97–9; ch. 6, pp. 150–5; ch. 7, pp. 188–90). I believe what Kant means, in the present case, is that the form of the inference is the *consequentia* (the relation between subject and predicate) expressed in the conclusion, which itself analytically results from the relations or *consequentis* expressed in the premises of the inference.

And finally:

The universal doctrine of method . . . has to deal with the form of science in general, or with the ways of acting so as to connect the manifold of cognition in a science.¹⁷

Now, the intellectualist philosopher's mistake is to think that this relation between matter and form of thought is sufficient to define the relation between matter and form of things, which can thus be cognized as *noumena*, objects of pure thought. In fact, retorts Kant, things as we know them are not *noumena*, but *phenomena*. The matter and form of phenomena are not matter and form of pure thought, but matter and form of sensibility: matter as that which "corresponds to" sensation, form as space and time, forms of intuition. Kant's main point is that this being so, the relation between matter and form of possibility is the reverse of what the rationalists (as he understands them) made it to be: from the rationalist standpoint, the matter of possibility is prior to its form, and this is why the rationalist supposes an unbounded reality (the intelligible "matter" of all determinations of things) by limitation of which (= the "form" of all possible things) every particular thing is thought. But from the critical standpoint, the form of possibility is prior to its matter. There is of course more here than a mere reversal of priority: the very notion of possibility is then completely redefined. The possible has no ontological, but merely a transcendental status: what is possible is what agrees with the formal conditions of our knowledge (intuition and concepts). In other words, the "possible" has no existence of its own, be it as a pure essence in God's understanding, alternative possible worlds, or whatever else. Unbounded reality as the ground of all possibility is replaced by something which has, left to itself, no reality (namely no positive determination) at all: space and time, as mere forms of intuition:

[I]n respect to things in general, unbounded reality was viewed as the matter of all possibility, but its limitation (negation) as that form through which one thing is distinguished from another in accordance with transcendental concepts. The intellectualist philosopher could not bear it that form should precede the things and determine their possibility; a quite appropriate criticism, if he assumed that we intuit things as they are (though with confused representation). But since sensible intuition is an entirely peculiar subjective condition, which grounds all perception

¹⁷ *Ibid.*, §96, AA1x, p. 139.

a priori, and the form of which is original, thus the form is given for itself alone, and so far is it from being the case that the matter (or the things themselves, which appear) should be the ground (as we would have to judge according to mere concepts), that rather its very possibility presupposes a formal intuition (time and space) as given. (A267–8/B323–4)

But given the argument of the whole chapter on concepts of reflection, which is itself a mere appendix to the argument of the *Analytic* as a whole, Kant's point can be extended: the primacy of form over matter does not concern merely sensibility, but also discursive thought. The whole array of forms of discursivity (the form of universality of concepts, forms of judgment as forms of the capacity to generate concepts to be combined in judgments, forms of syllogisms as imbedded in forms of judgment, and finally the form of a system as the form of the unity of empirical cognitions related to the unity of space and time) has to be presupposed for any empirical object to be cognized under concepts. In this developed assertion of the primacy of form over matter, the *ens realissimum* of rational metaphysics and of Kant's own pre-critical system¹⁸ finds its overthrow. As a ground of all possibility, it is reduced to a mere form, with no ontological status.

This point is vividly expressed in a remarkable *Reflexion* dated by Adickes in 1783–4, where the *ens realissimum* is presented as a discursive form corresponding to the intuitive forms of space and time:

That something be actual [*wirklich*] because it is possible according to a universal concept, does not follow. But that something be actual because it is completely determined through its concept among everything possible, and distinguished as singular [*als eines*] from everything possible, means the same as: it is not a universal concept any more, but the representation of a singular thing completely determined by concepts in relation to everything possible. This relation to everything possible by the principle of complete determination is the same, by concepts of reason, as is the somewhere and some time [*irgendwo und irgendwann*] by conditions of sensible intuition. For space and time determine not only the intuition of a thing, but at the same time its individuality by the relation of place and instant . . .

From this it follows that the *ens realissimum* must be given prior to the *real* concept of all possibility [*zu dem realen Begriffe aller Möglichkeit vorher gegeben sein müsse*]. And just as space cannot be first thought as possible,

¹⁸ Cf. above, n. 12.

but must be given, not as an object actual in itself, but as a mere sensible form in which alone objects can be intuited, in the same way the *ens realissimum* must be given not as an object, but as the mere form of reason, in order to think the difference of every possible entity in its complete determination; it must be given as an idea which is subjectively actual, before anything is thought as possible; but from this it does not follow that the object of this idea is actual. One sees nevertheless that in relation to the human understanding (and its concepts) the idea of a highest being is just as necessary as is space and time in relation to the nature of our sensibility and its intuition.¹⁹

If we compare this to what is said of the *ens realissimum* in the Transcendental Ideal, we can say the following. In the Transcendental Ideal, Kant argued that reason, by an unavoidable illusion, forms the idea of a *totum realitatis*, individuated as an *ens realissimum*, as the condition of the complete determination of individual things in general. But as given to us, things are completely determined, i.e. individuated, only insofar as they are empirically given in space and time. The *totum realitatis* we do have to presuppose as the given condition of their complete determination is thus the (indeterminate, collective) whole of reality given in space and time. However, making this critical point was not putting an end to the purely rational idea of a whole of reality. Rather, it was constraining us to take it for what it is: a mere thought, without an object.

What we now see is that the Amphiboly of Concepts of Reflection had already given a status to this thought: it is a mere form, or mode of ordering our representation, as the highest condition of the systematic division by virtue of which individual things are conceptually determined, i.e. located in a universal scale of genera and species. As a discursive form, it does have a strictly intellectual status. What it does not have is any relation to objectivity independently of the matter that it determines (inferences, judgments, empirical concepts, and thus ultimately and mediately, the matter of those empirical concepts themselves, i.e. the matter of appearances, “that which corresponds to sensation”).

Now, this notion of form, culminating in the form of complete determination supposed to guide all reflection, brings us very close indeed to the exposition of reflective judgment in the Introduction to the third *Critique*. I now turn to this last text.

¹⁹ *Reflexion* 628g, AAxviii, pp. 558–9.

Reflective judgment and the affinity of appearances

In the First Introduction to the third *Critique*, Kant raises the following question: how can we assume that what is empirically given to our effort of cognition has such homogeneity as to allow for cognition under empirical concepts and empirical laws? He answers this question by stating that our power of judgment assumes, as a principle for its reflective use, that there is in fact in nature no “disturbingly unbounded diversity of empirical laws and heterogeneity of natural forms.” Rather, “through the affinity of particular laws under more general ones, nature qualifies for an experience as an empirical system.”²⁰ Now, such an affinity of appearances is precisely what the principle of complete determination and its presupposition of a sum total of all possibilities, and ultimately an *ens realissimum*, was meant to ground, in the Transcendental Ideal:

Through this principle, every thing is related to a common correlate, namely the collective possibility [*die gesammte Möglichkeit*], which, if it (i.e., the matter for all possible predicates) were present in the idea of an individual thing, would prove an affinity of everything possible through the identity of the ground of its complete determination. (A572/B600n)

But the critical analysis of the Ideal concluded that the “one thing” could be asserted to exist only as the whole of reality presupposed for the unity of experience, from which positive determinations or realities were generated distributively through the empirical use of the understanding. And the criticism of the Amphiboly of Concepts of Reflection had previously given the warning that the form of affinity, or homogeneity of the empirical given, was precisely this: a mere form, imbedded in the concepts of reflection describing “in all its manifoldness the comparison of representations which is prior to the concepts of things” (A269/B325).

The Introduction to the third *Critique*, it seems to me, makes the same point. But it makes it more clearly than before, because it makes it without going once more through the criticism of the illusory version of complete determination in rational metaphysics. For the same reason, the articulation of the unity conferred to nature by the universal principles of the understanding, and its unity all the way down to the subsumption of individual objects under particular empirical laws thanks to the principle of reflective judgment stated above, is fully elaborated. It is

²⁰ *Critique of the Power of Judgment*, First Introduction, AAxx, p. 209.

often thought that this articulation consists in an opposition, or at least a strict separation, between the determinative use and the reflective use of the power of judgment.²¹ And true enough, Kant writes:

The power of judgment can be considered either as a mere power to reflect according to a certain principle, upon a given representation, in order to form a possible concept [*zum behuf eines dadurch möglichen Begriffe*]; or as a power to determine a concept available as a ground, by means of a given empirical representation.²²

In the second aspect, one may recognize the use of the power of judgment by means of which categories are applied to phenomena. The first aspect, on the other hand, is the use of the power of judgment by means of which empirical concepts and empirical laws are formed. But in fact these two uses are, in Kant's presentation, not opposed, but complementary, and indeed, inseparable. There is no determination without reflection, determination by the pure concepts of understanding is indeed nothing but an "instruction for reflection." What is also the case, though, is that reflection (by which empirical concepts and laws are found) needs more than the "instruction" by the pure concepts of the understanding: it needs the specific principle which presupposes, for the benefit of the power of judgment, the affinity or homogeneity of phenomena. These two aspects: (1) determination for reflection, (2) reflection under a principle of affinity, are clearly stated, and stated together, in the following passage, which is very famous but nevertheless insufficiently heeded:

With regard to the universal concepts of nature, under which a concept of experience [*ein Erfahrungsbegriff*] (without any particular empirical determination) is first possible at all, reflection already has its direction in the concept of a nature in general, i.e. in the understanding, and the power of judgment requires no special principle of reflection, but rather *schematizes* the latter *a priori* [*sondern schematisiert dieselbe a priori*] and

²¹ Michael Friedman, for instance, suggests that an important aspect of the "transition project" of the *Opus Postumum* was to overcome the discontinuity between the formerly "entirely independent domains" of reflective and determinative judgments. See his *Kant and the Exact Sciences*, p. 262, and in general pp. 242–64. Friedman does acknowledge, however, that reflection should be seen as playing a role in the *Metaphysical Foundations*. But he seems to think that Kant became aware of this fact only at the time of the "transition project" and under the spur of the problems raised in connection with the Aether Deduction (*ibid.*, p. 320). If I am right in the analyses I propose, the reflective aspect of judgment played an essential role in the argument of the first *Critique* itself, and therefore also in Kant's conception of the role of the categories in the *Metaphysical Foundations*. On this point, see my concluding remarks.

²² AAXx, p. 211; see also AAV, p. 179.

applies these schemata to every empirical synthesis, without which no judgment of experience would be possible at all. The power of judgment is here *in its reflection at the same time determining* [emphasis mine] and its transcendental schematism serves it at the same time as a rule under which given empirical intuitions are subsumed.

But for those concepts which must first of all be found for given empirical intuitions, and which presuppose a particular law of nature, in accordance with which alone *particular* experience is possible, the power of judgment requires a special and at the same time transcendental principle for its reflection . . . All comparison of empirical representations in order to cognize empirical laws . . . presupposes that even with regard to its empirical laws nature has observed a certain economy suitable to our power of judgment and a uniformity [*Gleichförmigkeit*] that we can grasp, and this presupposition, as an *a priori* principle of the power of judgment, must precede all comparison.²³

A lot should be said, which I cannot say here, about the role of schematism in the “instruction for reflection.” I at least want to note this: the relation between schematism and reflection was already present in the first *Critique*, if one takes seriously what was said there about “logical reflection” as guided by concepts of comparison, or concepts of reflection, corresponding to each of the logical functions of judgments. Given that these logical functions are also the origin of the categories, I suggest that the picture that emerged from the first *Critique* was the following: understanding, or the power of judgment, guides the syntheses in imagination of what is given in space and time to make it analyzable according to logical forms of judgment. This is how it produces schemata, or universal forms of synthesis, by means of which appearances will ultimately be recognized as subsumable under the categories. Categories, or pure concepts of the understanding, are the “universal representations” of the syntheses implemented by the understanding in order to make the sensible given “reflectable” under empirical concepts combined in judgments. Forms of judgment are forms of reflection, guided by “concepts of reflection” as described in the Amphiboly chapter. These forms culminate in the form of systematicity, announced as early as the metaphysical deduction of the categories in the joint forms of infinite and disjunctive judgment which remain the constant horizon of the “distributive use of the understanding” as described in the critical reduction of the *ens realissimum* at the end of section two of the Transcendental Ideal.

²³ AAxx, pp. 212–13.

It may be objected that such an account of systematicity gives short shrift to the regulative role of the ideas of pure reason, and in particular the Ideal, expounded most notably in the appendix to the Transcendental Dialectic. Well, actually, I do think that the Transcendental Analytic, together with its appendix, was sufficient to offer an account of systematicity which does away with the ontological illusion carried by the Ideal of pure reason. And the conclusion of section two of the Transcendental Ideal seems to endorse precisely such an account. In the reading I have suggested, Kant criticizes the hypostatization of the idea of a *totum realitatis* as an *ens realissimum*. And he endorses the necessary supposition of a *totum realitatis* as the necessary condition of the unity of experience and of the distributive use of the understanding in generating empirical concepts of specific realities or positive determinations of things.

Why then does Kant nevertheless affirm the necessity of the illusion, and argue for a regulative use, not merely of the idea of a *totum realitatis*, but even of the corresponding Ideal (the *ens realissimum*)? The answer to this question, I believe, lies in the relation Kant establishes between the theoretical and the practical use of reason. In this regard, there is an interesting symmetry between the appendices to the two parts of the Transcendental Logic. The appendix to the Transcendental Analytic, on the Amphiboly of Concepts of Reflection, attributes the erroneous, intellectualist conception of a whole of reality to a kind of inertia of the understanding pursuing its course beyond its legitimate use, in which it should be bound by the senses; overcoming this inertia and waking up the understanding to the bounds of the senses leads to rejecting the idea of the primacy of the matter of thought over its form (i.e. the primacy of the unbounded whole of reality over its limitations) in favor of the primacy of form over matter in experience. But the appendix to the Transcendental Dialectic, on the regulative use of the ideas of pure reason, explains the necessity of the idea and of the corresponding Ideal *not* by the inertia of the understanding, but rather, by the dynamics of reason,²⁴ which demands both the idea (the *totum realitatis*) and the supposition of its object (the *ens realissimum*), for its own practical purposes. Therefore the idea and its object are *also* called upon to play a role, but merely regulative, in cognition, and the appendix to the Transcendental Dialectic balances out the appendix to the

²⁴ I borrow this expression from Gerd Buchdahl: cf. *Kant and the Dynamics of Reason: Essays on the Structure of Kant's Philosophy* (Oxford: Blackwell, 1992).

Transcendental Analytic. The latter sends us backwards, to the whole development of the Analytic, for an account of the form of systematicity in the theoretical use of the understanding. The former sends us forward, to practical reason and its postulates, meanwhile restricting all of the ideas to a regulative role in the theoretical realm.²⁵ In this way, it also points to a unity between the realm of nature and the realm of freedom which the third *Critique* will further elaborate as the articulation of two legislations, that of understanding and that of reason.

What exactly, then, does the third *Critique* add to this picture? First of all, it is no small achievement of its Introduction, in both editions, that it makes explicit the cooperation between determination and reflection in judgment. But this, if I am right, is not so much an innovation as just this: a clarification. The true novelty of the third *Critique* consists in adding to the picture I just drew, and relating to the cognitive use of judgment, those merely reflective judgments, judgments where reflection is without determination: aesthetic and teleological judgments. And finally, the novelty of the third *Critique* consists in making the “merely reflective” judgments the locus of the articulation between the legislation of reason through the concept of freedom, and the legislation of the understanding through concepts of nature. So I am not trying to say that nothing new could be added after the first *Critique*. What I am claiming is that, so far as the problem of complete determination is concerned, the terms of the problem, and the manner of its solution, present a fundamental continuity when we move from the first to the third *Critique*. I think that this continuity, if properly understood, gives added strength to both *Critiques*, and makes both of them more interesting and convincing than they would otherwise be. It allows for a better understanding of the relation between the cognitive and the non-cognitive use of judgment, and of the relation of both kinds of judgment to practical reason.

In sum: I have argued that the “principle of complete determination” formulated at the beginning of the Transcendental Ideal is not only a principle that pure reason, when abstracted from all relation to the senses, holds to be true of things in general. It is also a principle Kant holds to be true of things *as* appearances. I have attempted to show what meaning the principle has in relation to things as appearances, in light of

²⁵ It would be desirable to specify in the case of each idea (the soul, the world, God, or the *ens realissimum*) what its specific regulative role is, and how it relates to the form of systematicity expounded in the first section of the appendix to the Transcendental Dialectic (A642–68/B670–96). Within the limits of this chapter, my goal was only to clarify the role of the idea of a *totum realitatis* and the related ideal (hypostatized singular object, *ens realissimum*).

the teachings of the Transcendental Analytic. I have argued that clarifying the meaning of the principle in this context also gives us a better understanding of what remains of the purely rational principle once confronted with the severe restrictions the *Critique of Pure Reason* places on any attempt to claim determinate cognition of things independently of the conditions of sensibility. In comparing the criticism of the Transcendental Ideal in section two of the Transcendental Ideal to what was said of the rationalist notion of *ens realissimum* in the Amphiboly of Concepts of Reflection, I have concluded that from the standpoint of the Transcendental Analytic, the rationalist (and Kant's own pre-critical) notion of an *ens realissimum* became a mere form of thought, or a component in the form of systematicity that determines its own matter (inferences, judgments, concepts, ultimately the matter of appearances). And finally, I have argued that relating this last form to the notions of matter and form at work in Kant's account of reflective judgment in the First Introduction to the third *Critique* goes yet one more step toward depriving the idea of the *ens realissimum* of any kind of ontological status.

There remained the question: why is Kant so intent on asserting, again and again, the necessity of the idea, the unavoidable illusion it carries, and even the positive, regulative role it plays in cognition? My suggestion is that none of this would be necessary unless Kant was intent on maintaining its role for practical reason. The unity of theoretical and practical reason is what drives the admissions of theoretical reason itself. Whether the practical grounds for endorsing the idea of *ens realissimum* are any stronger than the theoretical grounds, is a question I had no ambition to answer in this chapter.

MORAL JUDGMENT AS A JUDGMENT OF REASON

Kant says relatively little about moral judgment. He spends much more time and care explaining and justifying the content of the moral *law*, expounded in the different formulations of the categorical imperative: “Act only in accordance with that maxim through which you can at the same time will that it become a universal law”; “So act that you use humanity, whether in your own person or in the person of any other, always at the same time as an end, never merely as a means”; “Act only so that the will could regard itself as at the same time giving universal law through its maxim.”¹

To be sure, these formulations of the categorical imperative are supposed to function as principles or premises for inferences determining a system of duties. In other words, they must serve as principles for two kinds of moral judgments: (1) those by which we determine what we are supposed to do or refrain from doing in virtue of a specifically moral commitment, that is, a commitment independent of any consideration of utility or of personal happiness; (2) those by which we subject to a moral evaluation the actions already performed by ourselves or by others, and

¹ Cf. *Groundwork of the Metaphysics of Morals*, trans. Mary Gregor (Cambridge: Cambridge University Press, 1998), AAiv, pp. 421, 429, 434. As I did for all other works of Kant (except for the *Critique of Pure Reason*), I give page references to *Groundwork* in the volumes of the German Akademie Ausgabe (AA). Henceforth I will give those references directly in the main text, citing volume and page numbers, e.g. (iv, 429).

the characters of those who performed them. So there is of course a relation between moral law and moral judgment, the originality of Kant's position being precisely that he makes the former the unconditioned principle of the latter.

Nevertheless, it remains true that Kant is more informative about the first than he is about the second. For instance, ch. 1 of the *Critique of Practical Reason* is entirely devoted to the moral law and its formulation in the categorical imperative. But "pure practical judgment," that is, moral judgment, is granted only two or three pages relegated to the end of ch. 2, whose main topic is the "Concept of an Object of Pure Practical Reason."² And even there, Kant is mostly concerned with explaining the fundamental difficulty we encounter in attempting to think the relation between the moral law (which depends on the faculty of reason alone, and thus on our belonging to a purely intelligible world) and actions that unfold in the sensible world and are thus causally necessitated. This metaphysical difficulty is according to Kant the root of the difficulty of moral judgment, evaluating an action or the will of the subject that performs that action (is it a good will or not?). For an external event, given in space and time, does not by itself give us any access to the internal motivation of the agent (did she act from respect for the moral law, or on the contrary from egoistic interest?).

If this is so, should we not say that the question of moral judgment is, by Kant's own admission, the weak link in his moral philosophy? In other words, even supposing Kant succeeded in his ambition to formulate "the *supreme principle of morality*" (IV, 392), did he not remain helpless when it came to grounding on this principle the indisputable validity of any moral judgment at all, whether determining (answering the question: what should I do?) or reflecting (answering the question: "is this action, and the will of this agent, morally good or evil?").³

² Cf. *Critique of Practical Reason*, ch. 1, AAv, pp. 19–57; ch. 2, section "Of the Typic of Practical Judgment," AAv, pp. 67–71.

³ Here I am applying to moral judgment the distinction made by Kant in the *Critique of the Power of Judgment*, between determining use of the power of judgment (where "the universal (the rule, the principle, the law) is given," and "the power of judgment subsumes the particular under it") and reflecting use (where "only the particular is given, for which the universal is to be found"): cf. AAv, p. 179. Kant does not make use of this distinction when he speaks of moral judgment, but it seems illuminating to me in respectively characterizing the (determining) application of the moral law in deciding to act, and the (reflecting) evaluation of a given action, that is, the search for the rule under which it was performed. Of course, "determining" and "reflecting" have a distinctively practical meaning here. For "determining" an action under the moral law is literally making it come about, not (as in the

Now to the suggestion that evaluating moral worth is, according to Kant, a task that remains fundamentally opaque for us, one might oppose Kant's adamant insistence on the fact that moral judgment, in contrast with theoretical judgment (which requires complex training and is susceptible to error), is accessible to all. Its verdict is infallible, at least for anyone who remains attentive to the voice of her conscience, that is to say (as we shall see shortly) to the demands of pure practical reason. Indeed Kant goes as far as to maintain that the verdicts of common moral conscience are more worthy of trust than the subtle distinctions and specious ratiocinations of academic moralists (IV, 404). This being so, the sole merit of elucidating the fundamental principle of morality (the categorical imperative in its various formulations) is to reinforce common conscience in the moral judgments it was perfectly capable of passing by itself, before their principle was made explicit. But that merit itself, modest as it may be, shows that it is possible to elucidate the nature and foundation of those judgments by which we determine, without any possible ambiguity, what we are morally obliged to do.

However, this only partly takes care of the worry that moral evaluation remains opaque for Kant. For the infallibility of common moral conscience (as long as it does not let itself be distracted from the voice of practical reason) concerns only the first of the two aspects of moral judgment described above: the determination of what we ought to do. In other words, the infallibility Kant proclaims is that of the agent's point of view on the action she is to perform. To the question "What should I do?" everyone, in any circumstance, is capable of finding the right answer, and the task Kant assigns himself is only to elucidate the foundations of that answer. In contrast, the second aspect of moral judgment (evaluating a given action, or the character of the person who performs it) depends on the spectator's point of view, and judgment becomes plagued with insuperable uncertainty.

This primacy, in moral judgment, of the point of view of the agent on the action he ought to perform, over that of that same agent, as a spectator of the actions he or another has performed, will perform, or is performing, is the first originality of Kant's conception of moral judg-

theoretical use of judgment) applying a concept for the cognition of a given natural event. And "reflecting" upon an action to find out whether it should be judged good or evil is looking for the practical rule under which it has been performed, not (as in the theoretical use of judgment) looking for the concept that would adequately capture its place in a unified pattern of natural concepts and laws. On "determining" and "reflecting" uses of the power of judgment according to the third *Critique*, cf. above, ch. 8, p. 231.

ment. There is no difficulty, Kant maintains, in answering the question: "What should I do?" There is, on the other hand, an insuperable difficulty in any attempt to answer the question: "Is this performed action, and the will that made the decision, morally good?" This does not mean that we should abandon this second question. But if in this case a negative answer is often clearly decidable, the same is not true of a positive answer. For a seemingly moral motivation can always be the mask donned by egoistical interest or the search for other people's approval.

We can gather from the remarks above, then, that Kant's project is not only to establish "the supreme principle of morality," but also to elucidate and thus to reinforce our capacity to judge according to this principle. The first project (to establish the supreme principle of morality) is accomplished when Kant, in his *Groundwork of the Metaphysics of Morals* and *Critique of Practical Reason*, expounds and justifies his various formulations of the categorical imperative.⁴ The second project (to explain how we judge/ought to judge according to this principle) is present throughout the moral philosophy of the critical period, from the *Groundwork of the Metaphysics of Morals* to the *Metaphysics of Morals* itself, through the second *Critique* and *Religion within the Boundaries of Mere Reason*. Thus, even if the question of judgment occupies only a few pages in the *Critique of Practical Reason*, during his critical period Kant subjects to systematic investigation the (determining) application of the principles of morality as well as the (reflecting) moral evaluation of actions and agents.

It should thus come as no surprise if for each of the two projects mentioned above (grounding the supreme principle of morality, elucidating the judgments that we pass under this principle) Kant insistently appeals to the logical forms of judgment whose table he had established in the first *Critique*.⁵ His having in mind those logical forms is manifest when he expounds the different kinds of rules that practical reason gives to itself. Appealing to the first two forms of relation expounded in the table of the first *Critique*, Kant calls categorical the "commands (laws) of morality," and hypothetical the "rules of skill" and the "counsels of

⁴ Kant insists on the fact that the three main formulations of the categorical imperative quoted above "are at bottom only so many formulae of the very same law", cf. iv, 436.

⁵ Cf. *Critique of Pure Reason*, A70/B95. As we shall see in a moment, Kant makes explicit use of the first two titles of relation and the three titles of modality in his characterization of the imperatives of practical reason. But he also makes systematic use of the table in its entirety when he formulates, in the *Critique of Practical Reason*, the "table of the categories of freedom with respect to the concepts of the good and evil," which is in fact a table of the different logical characterizations of the *maxims* under which a good will acts: cf. AA v, 68. Subjecting this table to the systematic examination it deserves is beyond the scope of the present work.

prudence" (IV, 415–16). Appealing to the three divisions of modality, he calls the categorical imperative apodictic, the counsels of prudence assertoric, and the rules of skill problematic (*ibid.*). I intend to show that this reference to the logical forms of judgment helps elucidate the fundamental structures of moral reasoning according to Kant. For it helps us understand how the categorical imperative functions as a principle for testing the rules (initially instrumental and prudential, not moral) under which we determine our actions.

The relevance, in this context, of the logical functions elucidated in the first *Critique* is due to the fact that the implicit inferences that ground common moral conscience are rooted in the elementary forms of judgment brought to light in the first *Critique*. But here those elementary forms do not serve to order the information we receive through our sensations (as was the case in their theoretical use). Rather, they serve to order the desires and inclinations that drive us to act. In what follows, I will analyze a few aspects of this new role Kant assigns to the forms of discursive thinking. First, I will consider the use Kant makes of those forms in analyzing the rules of practical reason in its instrumental and prudential use (hypothetical imperatives). Second, I will consider the use Kant makes of them in founding the supreme principle of morality (categorical imperative). I will then show how this distinction between the two kinds of imperatives sheds light on the role of the categorical imperative in our deliberations and evaluations, that is, in our moral judgments.

The two aspects of Kant's examination of moral judgment (first, his attempt to formulate the "supreme principle of morality" and second, his attempt to analyze the application of the principle in moral decisions and evaluations) do not exhaust what is specific to moral judgment. Passing moral judgment is also holding someone responsible for her actions, which thus call for praise or blame, deserving reward or punishment. In the final part of this chapter, I will ask how this third aspect of moral judgment is related to the first two, according to Kant. I will suggest that in Kant's analysis, this third aspect is linked (perhaps more essentially than Kant himself would admit) to the context of juridical laws Kant considers in the first part of the *Metaphysics of Morals* (the Doctrine of Right).⁶ I will suggest that Kant's hesitations about the relation between right (juridical law) and morality is perhaps

⁶ Cf. *The Metaphysics of Morals*, trans. Mary Gregor (Cambridge: Cambridge University Press, 1996), AA VI, pp. 205–372 (henceforth cited in the main text by volume and page number in AA, e.g. VI, 205–372).

one of the main keys to his view of moral judgment, and an important element for evaluating its place in the history of moral philosophy.

Hypothetical imperatives

As mentioned above, Kant distinguishes between two main kinds of imperatives or principles of action prescribed to itself by a rational will. The first are the hypothetical imperatives, whose universal principle might be formulated thus: “If I will an end X, then I ought to will all the means Y available to me and necessary for achieving this end.”⁷ The second is the categorical imperative, whose initial formulation is the following: “I ought never to act except in such a way that I could also will that my maxim should become a universal law” (iv, 402).⁸ Only the “I ought” of the categorical imperative expresses a moral obligation. By contrast, the “I ought” expressed in the consequent of the hypothetical imperative (“then I ought to will the means Y”) expresses a mere norm of practical consistency: if I will a certain end, I ought to will the means

⁷ To my knowledge, Kant nowhere proposes this formulation for the universal principle of hypothetical imperatives. He does offer the following principle: “Whoever wills the end also wills (insofar as reason has decisive influence on his actions) the indispensably necessary means to it that are within his power” (iv, 417). This formulation is not satisfactory because it dispenses with the idea of practical commitment (if I will a certain end, I thereby commit myself [insofar as I am rational] to employ all the means available to me that are necessary to achieve this end; if it turns out I cannot endorse, or cannot obtain, the necessary means, then I must renounce the corresponding end). Kant comes closer to the formulation I propose when he says that the hypothetical imperatives “command the means to what it is presupposed one wills as an end” (iv, 419) and he talks of the hypothetical imperative (namely, what I have called the principle of all hypothetical imperatives) as the imperative that “commands willing the means for him who wills the end” (*ibid.*). On the relation between the principle of hypothetical imperatives (itself formulated as a hypothetical imperative) and the various kinds of hypothetical imperatives, see Thomas E. Hill, “The hypothetical imperative,” ch. 2 of *Dignity and Practical Reason in Kant’s Moral Theory* (Ithaca, NY: Cornell University Press, 1992), pp. 17–37.

⁸ “Ich soll niemals anders verfahren als so, daß ich auch wollen könne, meine Maxime solle ein allgemeines Gesetz werden.” This formulation is given at the end of section one of *Groundwork*. The formulations in the grammatical imperative quoted at the beginning of this essay (“Act . . .”) are given in section two. The formulation in the first person (“I ought never to act except in such a way”) has the advantage of making clear that the moral imperative is an imperative that the agent assigns to herself, and that there is no other ground for the obligation than being the subject who thinks “I.” It also makes clear that the role of the categorical imperative is mainly negative, and comes in after maxims have already been adopted: it asks me to check whether the maxim I have always already set for my actions from hypothetically formulated ends, is permissible or not (“*never act except in such a way that you could also will . . .*”). I will return to both points below.

necessary for achieving that end; if, for one reason or another, I do not endorse or obtain those means, then I ought to renounce willing the end.

The form of the hypothetical imperative (“if . . . then”) conveys precisely the fact that the injunction expressed in the consequent (“then I ought to will the means”) is conditioned by the preliminary position of an end, expressed in the antecedent. Such a conditioning relation is just what the hypothetical form of a judgment generally conveys. In a hypothetical judgment, Kant said in the first *Critique*, only the *Konsequenz*, that is, the relation between the antecedent (here, the statement of the end to achieve or obtain) and the consequent (here, the statement of obligation one sets to oneself, to will the means necessary to achieve the end), is asserted. Indeed, in the case of the hypothetical imperative, the *Konsequenz* is not only asserted, but apodictically asserted, since the relation between willing the end (antecedent) and being thereby committed to willing the means (consequent) is, according to Kant, analytic (see again iv, 419). This does not mean of course that whoever wills the end does will the means necessary to that end. Such would be the case only if our will were purely rational. But in the case of our sensibly conditioned wills, all we can say is that whoever wills the end is thereby committed to (i.e. ought to, or should, or must: Kant says *soll*) either will the means or, if it turns out the means are unavailable or unacceptable, renounce the end. Because our wills are not purely rational, whether we will indeed clearly adopt one or the other of these options is often a matter of no less struggle than whether we will act according to what the categorical imperative commands (a point considered below). This is precisely why there is room for a hypothetical imperative.⁹

⁹ On the form of hypothetical judgments for Kant, see above, ch. 4, pp. 98–9 and ch. 6, pp. 150–5. Note that Kant certainly does not mean to say that any imperative expressed in the form of a hypothetical judgment would thereby be a hypothetical imperative. Rather, the hypothetical form here captures a specific content: the relation between willing an end and being committed to willing the means necessary to achieve that end. In other words, Kant is making use of the forms of relation set up in the table of logical functions in the first *Critique* (in this case, the relation between antecedent and consequent in hypothetical judgments) to clarify the relation between “added condition” (willing an end) and conditioned (being thereby rationally obliged to willing the means) at work in the particular imperatives he therefore calls “hypothetical imperatives.” Note also that Kant sometimes describes what one is committed to by willing the end as “willing the means” and sometimes as simply “the means.” In other words, “If I will the end X, I ought to will Y,” or “If I will the end X, I ought to Y.” The difference is minimal, since as we shall see below, willing is for Kant one of the ways of “being by one’s representation the *cause* of the existence of an object” (see v, 9n and below, pp. 249–50). Willing and acting to make the object of one’s willing come about, are inseparable. Accordingly, in what follows I shall sometimes

Among the hypothetical imperatives, Kant distinguishes two main kinds: the counsels of prudence and the rules of skill. In the counsels of prudence, he claims, the antecedent expresses an end that all beings which are both rational and sensible have: their own happiness. The consequent expresses the injunction to will the means necessary to obtain that end. The general expression of counsels of prudence could thus be: "If I want happiness, then I ought to will all the means available to me that are necessary to achieve happiness."¹⁰ The rules of skill, for their part, have for their antecedent the expression of a particular end that some, and not all, are apt to give themselves. They have as consequent the injunction to employ the means to arrive at this possible end. For example: "If I want to become a violinist, then I ought to practice violin several hours a day."

Kant describes the counsels of prudence as assertoric and the rules of skill as problematic. This is perplexing. Just what is being described here?

In the *Critique of Pure Reason*, Kant says that the antecedent and the consequent of hypothetical judgments are both problematic (neither of them is asserted), and only the relation (*Konsequenz*) is affirmed, assertorically or apodictically (cf. A75/B100). As we just saw, when commenting on the nature of hypothetical imperatives Kant maintains that the connection between willing the end and the "command" to will the means is always analytic: this makes the connection apodictic (necessarily true). Thus whether one considers the components of the hypothetical imperative (the antecedent and the consequent), or the connection between them, the modality seems to be the same: problematic for the

formulate the principle of hypothetical imperatives: "If I will X, I ought to will Y" and sometimes: "If I will X, I ought to Y."

¹⁰ Kant defines happiness as "an absolute whole, a maximum of well-being in my present condition and in every future condition" (iv, 418). As Allen Wood emphasizes, the representation of such a goal is available only to rational beings. For it involves representing the idea of a *whole* well-being, not just the satisfaction of particular desires and needs; and it involves relating (comparing and connecting) present and future goods. See Allen Wood, *Kant's Ethical Thought* (Cambridge: Cambridge University Press, 1999), p. 66. I agree with Wood that in Kant's view, even though happiness is a goal of all rational and sensible beings, one can fail to act according to the goal of happiness, for instance when one lets a momentary pleasure take precedence over the goal of the "maximum of well-being." This only puts the agent in a situation of practical irrationality; it does not amount to denying that happiness is an ongoing purpose of human beings. More difficult for Kant's point is the case of the neurotic who nurses his own misery and just does not want to be happy. But I suggest such a case would be, for Kant, similar to losing the use of "I think" in cognition. When it happens, it means that something deeply pathological has befallen a particular human being in the (practical) use of "I" that essentially characterizes humanity.

components, apodictic for the connection. Why then does Kant distinguish the counsels of prudence and the rules of skill as being, respectively, assertoric and problematic?

According to Kant's explanation, the distinction in modality refers to the status of the antecedent. In the counsels of prudence, the antecedent is in fact true of any human being. All human beings, in fact, want to be happy. Although the antecedent in the expression of the imperative has the status of a problematic proposition, we must therefore assume the implicit minor of a hypothetical syllogism that posits it as assertoric ("I [and everyone else] want to be happy") and thus warrants the conclusion: "So I (and everyone else) ought to will all means available to me (to one) that are necessary to achieve happiness." The antecedent becomes assertorically stated in the minor premise. It is not apodictic, however. All human beings seek happiness. But it is not impossible to renounce this quest if a higher end compels one to do so. And it is all too often abandoned in favor of lower, particular ends (being rich, say; or being famous; or being powerful).

The hypothetical imperative that grounds the rules of skill is described as a "problematically practical principle" because "it says only that the action is good for some *possible* purpose" (iv, 415). We might understand this in two ways. One way is to say that in the rules of skill, all one needs is the statement of the hypothetical imperative itself (where both antecedent and consequent are merely problematic) to derive a maxim for action. This is what Kant seems to have in mind when he writes:

Principles of action in which the latter is represented as necessary for attaining some possible purpose to be brought about by it, are in fact innumerable. All sciences have some practical part, consisting of problems which suppose that some end is possible for us and of imperatives as to how it can be attained. These can be called, in general, imperatives of skill.

There is no need here that the purpose expressed in the antecedent should actually be posited in the minor premise of a hypothetical syllogism for the precept expressed in the consequent to be binding. The mere possibility that the antecedent might actually become a purpose to be achieved is sufficient to ground the necessity of the "ought" expressed in the consequent.

A second, and more complete, way to account for the "problematic" nature of a rule of skill is to actually formulate a practical inference

where the positing of the consequent (the detached “ought”) follows from the positing of the antecedent of the hypothetical major premise. What one posits in the minor premise, however, is the mere possibility of the antecedent’s obtaining. Kant expresses this most effectively when he takes the example of the various learning processes to which parents subject their offspring:

Since in early youth it is not known what ends might occur to us in the course of life, parents seek above all to have their children learn a great many things and to provide for skill in the use of means to all sorts of discretionary ends, about none of which can they determine whether it might in the future actually become their pupil’s purpose, though it is always *possible* that he might at some time have it. (IV, 416)

Consider the possibility that my child might have it in her to become a talented violinist. We might formulate the corresponding practical inference in the following way: “If it is possible that my child should want to become a professional violinist, she ought to practice her scales. It is possible that she should want to become a professional violinist. So she ought to practice her scales.” To be sure, the force of the imperative (“she ought to practice”) depends on the degree of probability of the end stated in the antecedent. If the end becomes assertorically affirmed (it turns out my child does want to become a professional violinist), the force of the imperative becomes as strong as that of the assertoric imperative of prudence (“I [and everyone else] ought to will the means necessary to achieve happiness”), while being much more determined: my child knows exactly what she wants to achieve, and thus what she ought to do. However, both the end and the means would be open to challenge if it turned out that they jeopardized the overall goal of happiness (say, my child’s wish to have a star’s career threatened her mental or physical health, or her relations to loved ones). In this sense the “oughts” of the rules of skill remain always problematic in the face of the assertoric “ought” of the counsel of prudence (grounding its “ought” on an assertoric, although indeterminate goal, that of happiness).¹¹ And

¹¹ Note that a few years after writing *Groundwork*, in the First Introduction to the *Critique of the Power of Judgment* Kant expresses doubts about the wisdom of calling the rules of skill “problematic imperatives.” The expression, he remarks, is self-contradictory: how could an imperative be merely problematic (see AAxx, 200)? I should rather, he continues, have called them “technical imperatives” or “imperatives of art.” The explanation he gives for having called them “problematic” confirms the suggestions I have been making: rather

both hypothetical “oughts” are trumped if an imperative of apodictic force comes to oppose them.

The categorical imperative

In contrast to hypothetical imperatives, the principle of moral obligation has the form of a categorical judgment.¹² This form manifests the fact that the obligation is not conditioned by any antecedently given end or motive. According to Kant’s analysis of the forms of relation in judgment, the condition or reason for the assertion in a categorical judgment is contained in the subject of the judgment, be it the subject-concept (in an analytic judgment) or the intuition thought under the concept (in a synthetic judgment). The categorical form of the imperative (“I ought never to act except in such a way”) thus expresses the fact that by itself the subject “I” of the proposition “I ought to” provides the condition or reason for the obligation. In other words, being the referent of “I” is a sufficient reason for being thus obliged.

The formulation of the moral imperative as a categorical imperative thus invites us to ask the following question: what, in the nature of the referent of “I” (the referent of the logical subject of the categorical proposition “I ought never to act except in such a way”) grounds the assertion of the predicate, i.e. the assignment of obligation? This question is inseparable from another, which concerns the predicate itself: on what grounds does Kant claim that the content of the categorical obligation is that of “never acting except in such a way that I could also will that my maxim should become a universal law”? Kant offers an answer to the second question (which is a question for moral philosophy) in the first and second sections of *Groundwork of the Metaphysics of Morals*. He offers an answer to the first question (which is a question for metaphysics) in the third section of *Groundwork*, in the *Critique of Practical Reason*, and in

than the imperative itself, he says; it is the goal expressed in the antecedent that is “merely possible,” thus “problematic.” In the same footnote Kant also notes that in the rules of prudence, the goal is “actual” (thus the “assertoric” imperative), and “subjectively necessary.”

¹² It is also apodictic: the connection between the logical subject “I” in “I ought” and the predicate “ought never to act etc.” is a necessary connection, and the obligation thus grounded is unconditional (it does not depend on any previously stated end). Kant asserts the point as soon as he introduces the categorical imperative (iv, 415) and attempts to provide its ground by examining the nature of the referent of “I” in section three of *Groundwork* (iv, 446–8). See also below, n. 13.

Religion within the Boundaries of Mere Reason.¹³ Since my concern in this chapter is Kant's view of moral judgment, the question that is more relevant to me is the second: what justification does Kant offer for his claim concerning the content of the moral imperative?

To this question, we find two answers. The first, given in section one of *Groundwork*, consists in an examination of common moral conscience. Kant maintains that such examination leads to the following conclusions: (1) common conscience accords moral value to the will determined to act from duty; (2) to act from duty is to be motivated by respect for the law; (3) the expression of the law is that of the categorical imperative: "I ought never to act except in such a way that I could also will that my maxim become a universal law" (cf. iv, 393–402).

Kant gives a second, more extensive answer in section two. Like the first, this second answer draws on the teachings of common moral conscience, examined in section one. But it moves from there to a philosophical interpretation by examining the notion of a will and the different kinds of prescriptions the human will is capable of assigning to itself. I shall briefly sketch out the first answer before discussing the second in more detail.

In section one of *Groundwork*, the formulation of what is not yet called a "categorical imperative" (the expression appears only in section two) is preceded by several examples of supposedly common moral judgments (iv, 397–400). These examples are supposed to show that neither the action itself (for example, treating a client with equity), nor the sensible motive (for example, benevolence or compassion), nor the empirically determined end (for example, wanting the well-being of another) determines the moral worth of the action, and even less that of the agent. Only the universal principle according to which the agent is determined to act,

¹³ In section three of *Groundwork*, Kant explains that it is insofar as it belongs to the intelligible world, and in that capacity, is free of natural determinism, that the referent of "I" can ground its own moral obligation (see iv, 452–3). In the *Critique of Practical Reason*, Kant develops the thesis (briefly introduced in section three of *Groundwork*) of the reciprocity between free will and a will that determines itself under the representation of the moral law (AAv, 28–30). In *Religion within the Boundaries of Mere Reason*, he offers a striking presentation of the divided moral subject and the three aspects of its "disposition toward the good." The third aspect is none other than the moral disposition (see *Religion within the Boundaries of Mere Reason*, trans. and ed. Allen Wood and George Di Giovanni [Cambridge: Cambridge University Press, 1998], AAvi, pp. 26–9). The question of the relation between Kant's notion of the referent for "I" and his conception of morality would deserve a detailed study, which I am not undertaking in this book. Nevertheless, see above, ch. 5, pp. 119, 138–40.

and the agent's respect for this principle, as the motive for the action (what Kant calls "respect for the law"), are the source of the moral worth of the action as well as of the agent. The very content of the principle in question must therefore express this exclusion, from what determines the moral value of the action and the agent, of any empirical end as well as any sensible motive. But this leaves only the form of the law itself as a possible content for the principle: the principle commands to act only under that maxim (rule for action) that one can also will to become a universal law.

Here one might object that to exclude from the determination (or motivation) of a good will all ends dictated by the empirical interest of the agent as well as all sensible motivation does not necessarily mean to exclude all mention of an end or even of a motive from the content of the law. Why would the moral worth of an action not be determined by the fact that one acts out of respect for the law: "I should always endeavor to contribute not only to my own well-being but also to the well-being of other people"? Or, if we wanted to formulate the same ideas in terms of motivation rather than ends, why would the moral worth of an action not be determined by the fact that one acts out of respect for the law: "I must always include compassion in the determining motivations of my action"? The imperative would still have a categorical form (indicating that being the referent of "I," namely the subject assigning to herself an obligation, is the reason or sufficient condition for the assignment of obligation, without any particular end having to function as an added condition). But it would also have a content, the obligation thus assigned (the obligation to care about the well-being of others, or the obligation to include compassion among the determining motives of one's actions). By contrast, if the obligation expressed by the categorical imperative is only the obligation to want a law, no matter what that law is, it seems suspiciously empty – a familiar charge against Kant's categorical imperative.

In response it should first be noted that Kant will eventually derive both of the formulations just proposed from his own formulation of the categorical imperative: both belong to what the *Metaphysics of Morals* will define as duties of virtue.¹⁴ So in Kant's mind, the formulation he proposes for the categorical imperative provides a principle under

¹⁴ See *The Metaphysics of Morals*, §§26–30 ("On the Duty of Love to Other Human Beings"), vi, 450–3; §§45–7 ("On Ethical Duties of Human Beings toward One Another with Regard to Their Condition"), vi, 468–72.

which it is possible to unify (and eventually give reasons for) the obligations that common conscience gives itself, even if the latter does not explicitly formulate the principle when passing its moral judgments to determine duties. At the very preliminary stage of Kant's argument in section one of *Groundwork*, Kant's only claim is that moral judgments (of the first kind mentioned at the beginning of this chapter: judgments determining what we ought to do) can, in fact, be unified under the principle: "I ought never to act except in such a way that I could also will that the maxim of my action become a universal law." That is all that the argument I briefly recapitulated above is meant to show.

That common moral judgments not only can, but must be, so unified, namely that the principle formulated at the end of section one is indeed the principle (or one version of the principle) under which we determine what we are morally obliged to do, is what Kant undertakes to show in section two of *Groundwork*. To this end, he no longer rests his argument merely on the analysis of examples drawn from common moral conscience. Instead, he leads his reader, step by step, from the initial formulation of the principle of morality (end of section one) to a system of related formulations (section two), all of which find their starting point in a philosophical analysis of what it amounts to for a human being to have a will. Here it will help to say a few words about Kant's notions of "will" and "faculty of desire."

The faculty of desire is the capacity "*to be by means of one's representations the cause of the reality of the objects of these representations*" (v, 9n, emphasis Kant's). Kant also calls it the "*subjective condition of life*" (ibid.). Animals typically possess such a capacity. So for example, an animal has the representation water and associates it with the feeling of pleasure that would follow from quenching its thirst. The representation causes the animal's movement towards the object it covets: it is "the cause of the existence of the object of representation," not, of course, in that the animal produces the water, but at least in that its movement will insure its proximity to the water. Its faculty of desire is thus indeed the faculty to be by its representation (here the representation of water associated with a feeling of pleasure) the cause of the existence of the object of its representation (here the presence of water).

What is specific to human beings is that concepts, judgments, and inferences are among the representations that come into play in the causal relation between the representation of an object and the existence (or presence) of that object. So for example, in the case of human beings the representation of water can be accompanied by concepts necessary

to the technical activity of digging a well, the geological knowledge of the soil, and so on. Here the faculty of desire is a will in that it determines a deliberate activity, carried out according to rules thought by concepts, expressed in judgments and connected to each other in inferences. Thus Kant writes: "Everything in nature works in accordance with laws. Only a rational being has the capacity to act *in accordance with the representation of laws*, that is, in accordance with principles, or has a *will*" (IV, 412). By "representation of laws," Kant means two things. First, the representation of laws is the knowledge of the objective causal connections between natural events. Our knowledge of these connections is what makes us capable of representing to ourselves the relations between the ends we are attempting to bring about by our actions, and the means for achieving these ends. Second, the representation of laws can be that of laws that are not descriptive (such as natural laws, which are descriptions of objective correlations), but prescriptive or normative. When Kant speaks of imperatives, he is of course talking about the second type of law.

A hypothetical imperative (of the form: "If I will the end X, then I ought to will the means necessary to achieve X, insofar as they are available to me") is one of the possible cases of prescriptive laws. But, as we have seen above, such an imperative does not express a moral norm. It expresses only a norm of consistency in willing. Since such an imperative does not command unconditionally, which is what we expect from a moral imperative, the question is: if there is a categorical imperative (one that commands unconditionally), what is its formulation? Kant answers this question by providing again, this time in the grammatical form of the imperative singular ("Act . . .") the very same law that was expressed, in section one of *Groundwork*, in the first person of the indicative ("I ought never to act except in such a way, that . . . [*Ich soll niemals anders verfahren als so, dass . . .*])." The formulation now becomes: "Act only in accordance with that maxim through which you can at the same time will that it become a universal law" (IV, 421). Kant endeavors to justify this formulation by drawing on the contrast between hypothetical and categorical imperative. He writes:

When I think of a *hypothetical* imperative in general, I do not know beforehand what it will contain; I do not know this until I am given the condition. But when I think of a *categorical* imperative, I know at once what it contains. For, since the imperative contains, beyond the law, only the necessity that the maxim be in conformity with this law, while the law contains no condition to which it would be limited, nothing is left with which the maxim of action is to conform but the universality of a law

as such; and this conformity alone is what the imperative properly represents as necessary.

There is, therefore, only a single categorical imperative, and it is this: *“Act only in accordance with that maxim through which you can at the same time will that it become a universal law.”* (IV, 420–1)

If we rehearse what was said earlier about hypothetical imperatives, the idea seems to be the following. A being endowed with a will is a being endowed with a faculty of desire that acts not only in accordance with laws, but in accordance with the representation of laws. Some of these laws are prescriptive laws, or imperatives. In a hypothetical imperative, the prescription (“I ought to act” or “Act”) is conditioned by an end to be achieved (“If I will X, I ought to Y”). But a moral imperative is not of this kind. It commands unconditionally (“I ought to Y”). Now the faculty of desire, as the “subjective condition of life,” is always presented with sensible motives and ends, which determine the antecedent (expressing a goal to be achieved) and the consequent (expressing the means to achieve that goal) of a hypothetical imperative. These are the default conditions, as it were, in which the categorical imperative is called upon to determine the faculty of desire, because there are, in fact, always ends that determine what we think we ought to do. Therefore, if there is a prescription proper to the categorical imperative, it can only be the prescription that it be possible also to will unconditionally what is willed under the condition of the particular ends expressed in hypothetical imperatives. In other words, it can only be the prescription that we allow ourselves only those “ought” clauses (prescriptions for action) that remain in place once subjected to the test of the categorical imperative.

If I am correct in the interpretation I propose of Kant’s reasoning, the interesting result is that the categorical imperative appears to intervene only in second position as it were, or as a second-order principle: its role is to evaluate the rules we already have, resulting from the hypothetical premises expressing prudential and instrumental relations of ends and means. Evaluating these rules under the categorical imperative can lead either to prohibit, or to allow, the maxim governing one’s action (“I ought to Y”) that follows from hypothetical imperatives. Understanding the role of the categorical imperative in this way takes care of the objection of vacuity evoked above. The reason the categorical imperative appears to be empty is that indeed on its own it provides neither specific goals to achieve nor specific means to achieve them. These are provided by the conditions under which human beings act and exercise their will

in determining their actions: the conditions of life. It is in relation to these conditions that the categorical imperative acquires specific content, in determining which of the maxims resulting from the application of hypothetical imperatives we “can” or “cannot” will to remain valid once they are separated from what conditions them, namely from the particular ends they serve.

“Can also will” and moral judgment

So far I have freely used the terms “maxim” and “rule” to apply to any self-prescribed rule of action. To better understand the role that the categorical imperative plays in moral judgments (determining judgments about what we ought to do), it will help to pause for a while and examine Kant’s distinction between maxims, precepts, and (practical) laws.

In *Groundwork*, Kant defines a maxim as “a *subjective* principle of action,” that is, a rule that the rational agent assigns to herself based on her particular empirical circumstances and inclinations. By contrast, a practical law is an objective principle of action, that is, a rule that the agent ascribes to herself by virtue of being a rational agent, independently of any particular empirical circumstances or inclinations: a rule, therefore, that applies to all rational beings strictly as such. Kant adds that a maxim is a rule according to which a subject acts, but only a law is a rule according to which he ought to act (*handeln soll*), that is, an imperative (IV, 421n).

This addition is surprising. For surely the consequent of hypothetical imperatives (the “then . . .” clause in “If I will the end X, then I ought to Y”) expresses a manner in which I ought to act. True, the rule of action thus expressed is binding only for the subject who wills the end X, expressed in the antecedent of the hypothetical imperative. It thus meets the first criterion for being “a maxim, not a law”: it is “subjective,” not “objective,” in the sense explained above. But it does not meet the second criterion (expressing only the way a subject acts, not the way she ought to act), unless one wants to restrict the expression “ought” to the moral ought. But this is not how Kant has been using the term, and this would deprive the idea of hypothetical imperatives of all meaning.

Kant returns to the distinction between “maxim” and “law” in the very first paragraph of the *Critique of Practical Reason*. There he begins by defining practical principles as “propositions that contain a general determination of the will on which depend several practical *rules*.”

These rules are of two sorts. They are “subjective, or *maxims*, when the condition is regarded by the subject as binding only for his will.” They are “objective, or practical *laws*, when the condition is cognized as objective” (v, 19).¹⁵ Here the distinction between maxim and law is not a distinction between “what we do” (maxims) and “what we ought to do” (law). It is a distinction, rather, between a rule that we assign to ourselves (=what we ought to do) under a condition particular to ourselves, and a rule that is binding for all. In both cases, then, there is an “I ought,” a prescription, but one is subjective (valid only for me), while the other is objective (valid for all). Let us note, moreover, that strictly speaking the maxims seem to be not the hypothetical imperatives themselves but rather the consequent of these imperatives, which are binding only under the condition that the antecedent be posited or asserted. A law, by contrast, is valid “under an objective condition,” that is, a condition valid for all.¹⁶ Both maxim and law thus express what we ought to do. They differ merely in that the former is binding only under a particular condition, and thus binding for some, not all subjects. The latter, in contrast, is binding universally, for all. Only the first criterion of the distinction (subjectivity of the maxim, versus objectivity of the law) seems thus to be retained.

And yet, even in the *Critique of Practical Reason*, some of Kant’s indications seem to bring us back to the second criterion stated in *Groundwork* for being a mere maxim (i.e. being an expression of “what we do” rather than “what we should do”). Thus, for example: “Someone can make it his maxim to let no insult pass unavenged” (v, 19). There is no necessity for such a maxim to present itself as an “I ought.” It may be only the recognition of a rule I in fact follow, and will follow: “I will not tolerate an insult without avenging myself.” Of course, to be followed, this rule must be endorsed by the subject who follows it: it is relevant to a person, in Harry Frankfurt’s sense of the term, an individual capable of

¹⁵ The text is ambiguous as to whether it is the “principles” or the “several practical rules” thought under them that are subjective or objective. This ambiguity does not create a major difficulty, though. For the relevant contrast will be between (objective) law, which will refer both to the categorical imperative and to the duties determined under it; and (subjective) precepts, which will refer to (1) the general principle of hypothetical imperatives, (2) particular hypothetical imperatives, and even (3) the detached consequents of those imperatives. More on this below.

¹⁶ This condition is the will itself, “the will as will” (v, 20). This point will be elucidated only in section three of *Groundwork*, when Kant maintains that a free will and a will that is determined under the representation of moral law are one and the same. Moral law is the law of a free will. Cf. above, nn. 8, 12, 13.

second-order attitudes on its own desires.¹⁷ But it does not have the strongly normative character of a formulation such as: “I *should not* tolerate an insult without avenging myself.” Kant does seem to distinguish the maxim, understood in that weak sense, from both types of imperative, hypothetical and categorical. He writes:

Imperatives, therefore, hold objectively and are quite distinct from maxims, which are subjective principles. But the former either determine the conditions of the causality of a rational being as an efficient cause merely with respect to the effect and its adequacy to it, or they determine only the will, whether or not it is sufficient for the effect. The first would be hypothetical imperatives and would contain mere precepts of skill; the second, on the contrary, would be categorical and would alone be practical laws. Thus maxims are indeed *principles* but not *imperatives*. But imperatives themselves, when they are conditional – that is, when they do not determine the will simply as will, but only with respect to a desired effect, that is, when they are hypothetical imperatives – are indeed practical *precepts* but not *laws*. (v, 20)

What we now have, then, are not two terms (maxims and laws), but four terms. The most general term is that of principle. There are three kinds of principle: (1) laws (which are both objective and imperative), (2) precepts (subjective and imperative), (3) maxims (subjective and non-imperative). The precepts include what Kant had called, in *Groundwork*, the rules of skill and the counsels of prudence, i.e. the hypothetical imperatives, expressing an “I should” or “I ought to” (*Ich soll*) under the condition of a previously determined end.¹⁸ The assertion of the antecedent of a hypothetical imperative is itself a maxim, i.e. a rule that expresses the manner in which our will is, in fact, determined, without

¹⁷ Cf. Harry Frankfurt, “Freedom of the will and the concept of a person,” in *The Importance of What We Care About* (New York: Cambridge University Press, 1988), pp. 11–25.

¹⁸ Again, there is some uncertainty about *what* the precept is supposed to be: is it the whole hypothetical imperative, or just the consequent that is asserted once the antecedent is asserted? In a way, it would seem natural to say that the hypothetical imperative itself (“if I will, then I ought”) holds universally, and thus objectively in Kant’s sense, precisely because in it, the antecedent remains problematic: it would thus be a law, only the detached consequent would be a precept. But this is not how Kant seems to use his distinction; he does seem to include the hypothetical imperative itself among the precepts. This is probably because what he has in mind is that the hypothetical imperative grounds the assertion of a subjective “I ought”. Note also that in the text cited, Kant mentions only rules of skill as examples of precepts, which gives force to Wood’s claim that strictly speaking there are no assertoric imperatives, only problematic ones (rules of skill). Against this view, I would still maintain my own, for the reasons stated above (see n. 11).

this determination needing to take the form of an “I must” or “I should” or “I ought to” (*Ich soll*).¹⁹

These distinctions should now help us clarify the role of the categorical imperative in the transition from mere maxims and precepts to practical laws. Consider Kant’s example, in the *Critique of Practical Reason*, whether it is permissible to keep a deposit for myself:

I have, for example, made it my maxim to increase my wealth by every safe means. Now I have a *deposit* in my hands, the owner of which has died and left no record of it. This is, naturally, a case for my maxim. Now I want only to know whether that maxim could also hold as a universal practical law. I therefore apply the maxim to the present case and ask whether it could indeed take the form of a law, and consequently whether I could through my maxim at the same time give such a law as this: that everyone may deny a deposit which no one can prove has been made. I at once become aware that such a principle, as a law, would annihilate itself since it would bring it about that there would be no deposits at all. (v, 27)

The rule, “I will increase my wealth by every safe means,” is a maxim: a rule that expresses the end that, in fact, I assign in general to my actions. The case that presents itself (I have in my possession a deposit whose existence is known to no one) falls clearly under the authority of this maxim. Consequently, not only can I formulate the hypothetical imperative: “If I want to increase my wealth by every safe means, then I ought to deny the existence of a deposit which no one can prove has been made.” I can also posit its antecedent, and detach the consequent: “Now I want to increase my wealth by every safe means. So, I ought to deny the existence of the deposit, etc.” This conclusion is, in the vocabulary laid out above, a precept: an imperative that holds only for me, under the condition set by the end I have given myself: increase my wealth by all available, safe means. There then arises the question: is it possible to will this precept to be universally binding? Namely: suppose I take no account of my particular end, can the precept be willed to bind (and thus, to bind universally, unconditionally)? This would make it a practical law, in the sense stated above. We thus have here instances of the

¹⁹ Of course the antecedent might first itself have been derived as a precept, for instance: “If I want to live comfortably, I ought to increase my wealth by all safe means.” Here, a rule that could, as a mere maxim (“I will increase my wealth by all safe means”), function as the antecedent in a hypothetical imperative (as in the example discussed below), is formulated as a precept (“I ought to”), as the consequent of another hypothetical imperative.

three main types of principle distinguished above: the assertion of the antecedent of the hypothetical imperative is a maxim; the assertion of the consequent of the imperative, detached as the conclusion of the inference, is a precept. A precept one took to be binding independently of the condition formulated in the antecedent of a hypothetical imperative, would thus bind universally and unconditionally: it would be a law.²⁰

The test of the categorical imperative is applied to the precept (the conclusion of the hypothetical syllogism). The test consists in asking whether I could consent to the universalization of the precept. In the case cited, the answer is negative: to universalize the precept “I must deny the existence of the deposit which no one can prove has been made,” would lead to canceling the very practice of deposits, and thus my very action, which depends precisely on the existence of that practice. Universalizing the detached consequent thus makes it self-contradictory. By *modus tollens*, the antecedent itself must therefore be denied. The *modus tollens* goes like this:

- 1 If I make it my maxim to (or, if I will) increase my wealth by all safe means, then I ought to deny the existence of the deposit which no one can prove has been made.
- 2 I ought not to deny the existence of the deposit which no one can prove has been made (result of the test of universalization, about which more below).
- 3 So, I do not make it my maxim to (or, I will not) increase my wealth by all safe means.

We see, on this example, that the categorical imperative subjects to the test of possible universalization first the particular rule of action, or precept (“I ought to deny the existence of the deposit which no one

²⁰ It may seem strange to ask whether the precept can be universally binding, namely a law: everyone should deny the deposit. After all, all we want to know is whether it is permissible to deny the deposit, not whether one should deny it. But the test by universalization of the initially “subjective” maxim is precisely a test of permissibility: the (subjective) maxim, or precept, is permissible only if I could also will it as a universal, unconditional precept: a law. This supposition is a mere fiction, but the fiction is what helps decide what I take to be permissible. If one is surprised that such a strong test should be called upon to establish something fairly mild – only the permissibility, not even the requirement, of an action – one should remember that the test is negative: if no contradiction emerges in the course of the test, then the action is permissible, although of course not required of all. On the other hand, if a contradiction does emerge, then the result is more forceful: the action is forbidden, and its contradictory opposite morally required. On the test itself and the problems it raises, see below.

can prove has been made"). Then, by virtue of the first test, the categorical imperative also evaluates the maxim on which the precept depended. The opportunity I receive, to fraudulently keep a deposit which was entrusted to me, leads me to put into question not only the precept resulting from the assertion of my maxim, but the maxim itself. A rule which seemed uncontroversial (to increase my wealth by every safe means) is challenged when the precept that it induces does not withstand the test of the categorical imperative.

We also see that the test consists in separating the precept (here, "I ought to deny the existence of the deposit which no one can prove has been made") from the end expressed in the antecedent of the hypothetical imperative (here, "increase my wealth by all safe means"). The precept, "I ought to keep the deposit" resulted analytically from willing the end expressed in the antecedent. If the precept does not withstand the test, then willing the end must be rejected as well.

Contradiction in conception, contradiction in the will

Kant writes that if we supposed the universalization of the precept that recommends not returning the deposit I have the opportunity to keep with impunity, "there would be no deposits at all." This is one of the two main kinds of impossibility outlined by the test of the categorical imperative: universalizing the maxim (the precept) leads to contradicting the very concept of the action prescribed by the detached consequent of the hypothetical imperative. This first kind of contradiction is now commonly called "contradiction in conception" and is distinguished from a second type, called "contradiction in the will."²¹ In the latter case, universalizing the maxim would make the relevant action impossible not by virtue of some intrinsic contradiction, but because the will which would

²¹ Cf. IV, 424: "Some actions are so constituted that their maxim cannot even be *thought* without contradiction as a universal law of nature, far less could one *will* that it *should* become such. In the case of others that inner impossibility is indeed not to be found, but it is still impossible to *will* that their maxim be raised to the universality of a law of nature because such a will would contradict itself" (italics are Kant's). The expressions "contradiction in conception" and "contradiction in the will" have been coined by Onora O'Neill: cf. *Constructions of Reason: Explorations of Kant's Practical Philosophy* (Cambridge: Cambridge University Press, 1989), ch. 5. See also Christine Korsgaard, *Creating the Kingdom of Ends* (Cambridge: Cambridge University Press, 1996), ch. 3. See also Christine Korsgaard's preface to *Groundwork*, p. xx.

want to universalize such a maxim would contradict itself. Such is the case, Kant maintains, with the maxim: "I do not care to contribute to the welfare of my fellow human beings" (iv, 423). Endorsing this maxim as a universal law would put us in contradiction with a fundamental purpose of all human beings, that of insuring their own welfare. Universalizing the maxim that recommends not to make it one's business to contribute to the welfare of others does not lead to an intrinsic impossibility (contradiction). But it is impossible not to want one's own welfare, which means it is impossible to renounce in advance the help of others in case of distress. Consequently, the maxim: "I do not care to contribute to the welfare of others," which it is impossible to will to be a universal law, is rejected by the test of the categorical imperative.

Two interesting points emerge from this example. First, the test of contradiction in the will takes into account the ends of empirical human beings (here, well-being) and not only those of rational beings.²² But second, the point of view on these ends required by the categorical imperative is a point of view that is in some ways impersonal, or perhaps more exactly, universally personal. When I consider adopting a maxim or a precept, I am required to consider whether, regardless of my particular goals, I could want this precept to become a universal law, that is, to be adopted by all, as a categorical imperative. If I could, then the precept is permissible (but not obligatory). If not, the precept is forbidden, and the contrary precept (for example: I ought to contribute to the well-being of others) is obligatory.

The first type of contradiction (contradiction in conception) determines "perfect duties," i.e. duties that "allow no exception in favor of the inclination." The second type of contradiction determines "imperfect duties," i.e. duties for which a degree of latitude is left to the agent in taking his inclinations into account in the determination of his actions. This distinction is linked to another, that between "narrow" and "wide" or meritorious duties. Narrow duties are commands or interdictions concerning specific actions (for example the interdiction to lie). Wide or meritorious duties are those which prescribe an end without specifying what actions must be undertaken to pursue this end. The duty of

²² The test by "contradiction in the will" also takes into account, of course, the ends of human beings as rational beings. One of the examples Kant gives is that of testing the maxim "I will not trouble myself with the cultivation of my talents." This maxim is rejected because its universalization puts it in contradiction with the proper end of a rational being, which is that "all the capacities in him be developed, since they serve him and are given to him for all sorts of possible purposes" (iv, 423).

benevolence toward others (caring for other people's welfare) is a duty of this type. This duty, determined under the test of contradiction in the will, is thus a duty at once "imperfect" and "wide."²³

One readily perceives the importance of the distinction between the two kinds of contradiction, and the different kinds of duties they respectively determine. The first kind of contradiction (contradiction in conception, determining "perfect" and "narrow" duties), seems to bear the whole weight of the so-called Kantian rigorism in matters of morality. The second kind of contradiction (contradiction in the will, which determines the "imperfect" and "wide" duties), leaving room for inclination and granting the agent a certain latitude in determining the action held to be good, seems to reintroduce a prudential dimension (tied to the search for happiness) into moral determination.

Now it is striking to note that the test by "contradiction in conception" seems especially relevant when applied to actions depending on human convention.²⁴ Thus for instance, it is clear that universalizing the maxim: "I will not return borrowed money" would put an end to (would be the negation of) the existence of loan, that universalizing the maxim: "I will make false promises" would be the negation of the practice of promise itself, that universal appropriation of deposits would be the negation of the very practice of deposit, and so on. All these actions are actions depending on convention, and they are the object of juridical regulation. Kant examines such actions in the first part of the *Metaphysics of Morals* (the Doctrine of Right). It is clear that in this domain, all duties are both perfect and narrow duties: they command obedience to an (external) rule which determines with precision which actions are permissible or

²³ For the distinction between "perfect" and "imperfect," "narrow" and "wide" duties, see *Groundwork* (iv, 422n) and *Metaphysics of Morals* (vi, 390). For the duty of benevolence as an "imperfect" and "wide" duty, see *Groundwork* (iv, 423–4); *Metaphysics of Morals*, §27 (vi, 450–1). The distinction between duties that are "narrow" and "perfect" on the one hand, and duties that are "wide" and "imperfect" on the other hand, can also be characterized under the second formulation of the categorical imperative: "So act that you use humanity, whether in your own person or in the person of any other, always at the same time as an end, never merely as a means" (iv, 429). The distinction is this time between the cases where the adoption of a maxim or precept would contradict the idea that humanity is an end in itself, and those where it would simply not contribute to the promotion of humanity as an end in itself (see iv, 429–31). Kant maintains that the results from the tests under these two formulas are the same. The scope of this chapter does not allow me to examine this point, nor to consider the role played by the third formulation of the categorical imperative, cited at the beginning of this chapter.

²⁴ What Christine Korsgaard calls, after Rawls, "practices" (see *Kingdom of Ends*, p. 85; John Rawls, "Two concepts of rules," *Philosophical Review*, vol. 64 [1955], pp. 3–32).

forbidden, required or not. But one may doubt that Kant is correct when he considers actions that are not defined by explicit, positive law, as if they arose from an implicit convention whose violation would, consequently, put an end to the very possibility of the action itself (as a “practice”).

In other words, I suggest that at least in the case of some of our moral duties, when Kant makes use of the notion of “contradiction in conception” he extends to the domain of morality a notion that he borrows from the domain of right (juridical law). Some actions are defined by (juridical) law, and to universalize an exception to the rule that defines them is to put an end to the action itself, which owes its very possibility precisely to its definition by the rule or law. This is the case for all actions defined by a contract. Now of course a number of actions that are not regulated by juridical law nevertheless derive their possibility from an implicit contract or trust between agents. The practice of the promise is the most obvious case. But when Kant extends the criterion of “contradiction in conception” to the use of language itself – to take the most famous example – he seems to treat it like an action whose status is defined by a contract between agents, an action whose description is in fact much more complex.

What I have in mind here is of course Kant’s famous discussion with Benjamin Constant.²⁵ From the Kantian characterization of moral duty, Benjamin Constant maintains, it follows that “it would be a crime to lie to a murderer who asked us whether a friend of ours who is pursued by him had taken refuge in our house” (this is Constant as cited by Kant, cf. VIII, 425). Kant confirms that lying under any circumstance would be a crime (not with respect to the murderer, he says, but with respect to “humanity in general”) (VIII, 426). But surprisingly enough, a large part of the discussion that follows deals with the question whether I would be juridically responsible for the misery that could, as a result of my action, befall an innocent man. Kant’s answer is roughly the following: if I did not obey the injunction of the categorical imperative (which commands me to not lie, since universalizing the maxim of lying would put an end to the practice of language and communication itself), then I am responsible for the misery that might result, and I am thus liable to be punished

²⁵ See Immanuel Kant, “On a Supposed Right to Lie from Altruistic Motives,” in *Critique of Practical Reason and Other Writings in Moral Philosophy*, trans. and ed. with an introduction by Lewis White Beck (Chicago: University of Chicago Press, 1949), pp. 346–51; AA VIII, pp. 425–30. Henceforth cited by volume and page number in the Akademie Ausgabe, e.g. VIII, 425–30.

by (juridical) law. If, in contrast, I obeyed the categorical imperative, then I am not responsible for the harmful consequences that could result from my action.

Such a reasoning seems to treat as a juridical question (no one can be punished for obeying the law) a question that Constant took to be a moral one. This shift from the realm of morality to that of juridical law seems confirmed by the fact that Kant holds that the practice of language is controlled by the implicit convention according to which we owe one another (or more exactly, we owe “humanity in general” and thus first of all, ourselves) veridical communication. To violate this convention is to put an end to the practice of language itself.

Could Kant have said something else? Could he have treated the situation presented by Benjamin Constant as arising from the demand, not of a perfect and narrow duty (to tell the truth) but of an imperfect and wide duty (to care for the welfare of others)? This would presuppose that he not consider language as one of those activities defined by their implicit contractual function (here: truthful communication), or lying, therefore, as an act depending on the adoption of a maxim whose universalization would negate the very existence of language. If he renounced these views, there would then be no call for applying the test of “contradiction in conception.” All we would have is a case for applying the test by contradiction in the will. The result of such a test (it is impossible to want universally that an innocent man be handed over to the violence of a criminal) would be more in conformity with common moral conscience, a point that should satisfy Kant.

If we generalize this result, we can suggest the following. The test by “contradiction in conception” applies only if the action under consideration is defined by a clear convention, be it juridical or not. But most of our actions are not of this kind. Most are such that they are candidates for the potential “contradiction in the will” which would result from the universalization of their maxim, much more than for a “contradiction in the conception” of the action itself that might arise from such a universalization. The reason why Kant does not see this point, I want to suggest, is that his conception of morality is largely dependent on a juridical model, however carefully he means to distinguish moral from juridical evaluation. When Kant distinguishes between right and morality, the contrast he draws is between the “external” and constraining character of juridical legislation on the one hand, and the “internal” and autonomous character of moral legislation on the other hand (cf. VI, 220; also 224). But this distinction between “external” and “internal”

legislation does not stop him from importing into the moral domain the juridical model of defining an action by the unambiguous convention which determines its very possibility.

Finally, I would like to suggest that the influence of the juridical model explains how we move from the discursive characterization of moral judgment, which I tried to elucidate earlier (the use of logical forms of judgment in the determination of the prescriptions that the will assigns to itself) to its dimension of imputation and retribution. I will offer some very brief remarks about this point, which on its own would require a much more detailed investigation.

Moral judgment, imputation, retribution

An action is morally good only if it is performed “out of respect for the law.” This means, in particular, that an action conforming to duty, but performed in the hope of reward or for fear of punishment, would not have moral value. In contrast, juridical legislation involves a system of external constraints that motivate the will to obey the law (cf. VI, 219–20). In the introduction to the *Metaphysics of Morals*, Kant defines imputation (“the judgment by which someone is regarded as the author of an action”), expounds the grounds for evaluating the merit or fault of an action, and explains how punishment and reward are appropriately adjudicated (VI, 227). If the first two points (the imputation and the evaluation of merit or fault) are relevant both to morality and to juridical law, the third belongs more specifically to the domain of right, i.e. juridical law (law that establishes a system of constraints to insure that “the choice of one can be united with the choice of another in accordance with a universal law of freedom,” cf. VI, 230). In other words, considerations of reward and punishment belong to the domain of right, or external law, not to that of morality strictly speaking, or internal law-giving.

And yet the demand of pure practical reason, that the Highest Good, i.e. the union of virtue and happiness, be realized, is a demand for *reward*, which can be satisfied only by the Supreme Judge, God. By Kant’s own admission, this is what makes the difference between the ancient concept of *summum bonum* and his own concept of Highest Good. For the Ancients, the virtuous life just is the highest form of happiness (in the Aristotelian or in the Stoic version of the Highest Good), or the reasoned search for happiness just is the virtuous life (in the Epicurean version of the Highest Good). But for Kant, virtue is nothing else than

“moral intention in struggle” (cf. v, 84), i.e. the resolution to motivate one’s actions by respect for the moral law, in spite of the obstacles presented by our passive, sensible nature. Only a supreme judge can insure that virtue be justly rewarded, and pure practical reason cannot but want such reward, even if it must not allow this desire to be a determining motivation for the moral action. My suggestion is thus the following: Kant’s Highest Good is a limit case, on the scale of humanity as a whole, of the juridical model of retribution. This prevalence of the juridical model for Kant’s view of morality did not escape Hegel, nor did it escape Nietzsche. Each of them made this aspect of Kant’s moral philosophy a central theme of their interpretation and criticism.²⁶ It may explain the prevalence of the so-called test by “contradiction in conception” in Kant’s account of what we ought to do.

Concluding remarks

According to Kant, the discursive capacities of the thinking subject, whose role in cognition has been analyzed in the *Critique of Pure Reason*, play an equally essential role in the determination of action: in the agent’s reflection on the relation of ends and means (in the self-prescription of hypothetical imperatives) on the one hand, and in the higher demands of morality (the evaluation of subjective maxims and precepts under the objective principle of the categorical imperative) on the other hand. Just as in the domain of its theoretical use, so too in the domain of its practical use the role of reason is to promote a standpoint on the whole (here, a “kingdom of ends” where every human being would be, as such, a legislator), which calls upon rational capacities shared by all. The role of practical reason is not to generate a representation of good and evil by pure concepts, but to order our empirical/sensible ends under the discriminating principle of the categorical imperative.

²⁶ In his *Principles of the Philosophy of Right*, Hegel presents “morality,” namely the Kantian moral view, as an internalization of the demands of “abstract right,” namely juridical law: see G. W. F. Hegel, *Elements of the Philosophy of Right*, ed. Allen W. Wood, trans. H. B. Nisbet (Cambridge: Cambridge University Press, 1991), part II: Morality, esp. §135, pp. 162–3. Nietzsche, on the other hand, traces both juridical law and Kantian morality back to the age-old practice of *Schuld*, debt (note that the German word *Schuld* means both debt and guilt). See Friedrich Nietzsche, *The Genealogy of Morals*, trans. Walter Kaufmann (New York: Random House, Vintage Books edition, 1989), essay 2, esp. §§5–6, pp. 64–7 ; §§20–1, pp. 90–2.

I suggested that the application of this principle takes a very different form whether one privileges one or the other of the two main kinds of contradiction (“contradiction in conception,” “contradiction in the will”) under which Kant calls upon us to test the possibility of universalizing our maxims. I suggested that the importance given by Kant to the test by “contradiction in conception” tells much about the importance for Kant of the juridical model of defining an action by an explicit convention. To follow this suggestion further would necessitate examining more closely the relation between external law and morality for Kant and for his immediate predecessors and followers. We would also need to question more closely the conception of the will which gives meaning to the second type of contradiction evoked by Kant, “contradiction in the will.” Such a study would be all the more important as it would perhaps allow us better to understand the relation between the various aspects of the referent of “I” in “I think,” in the first *Critique*, and the various aspects of the referent of “I” in “I will,” in Kant’s moral philosophy.

KANT'S LEADING THREAD IN THE ANALYTIC OF THE BEAUTIFUL

Kant conducts his Analytic of the Beautiful, in the *Critique of the Power of Judgment*, according to the “leading thread” that also guided the table of the categories in the first *Critique*: the four titles of the logical functions of judgment. This leading thread, which has not met with much favor on the part of Kant’s readers where the first *Critique* is concerned, is even less popular in the case of the third *Critique*. I will argue that this ill repute is unmerited. In fact, Kant’s use of the leading thread of the logical functions of judgment to analyse judgments of taste merits close attention. In particular, it brings to light a striking feature of judgments of taste as analyzed by Kant. We would expect the main headings in the table of logical functions (quantity, quality, relation, modality) to guide the analysis of aesthetic judgments as judgments about an object (“this rose is beautiful,” “this painting is beautiful”). Now they certainly do serve this purpose. But in addition, it turns out that they also serve to analyze another judgment, one that remains implicitly contained within the predicate (“beautiful”) of the judgments of taste. This second judgment, imbedded, as it were, in the first (or in the predicate of the first), and which only the critique of taste brings to discursive clarity, is a judgment no longer about the object, but about the judging subjects, namely the subjects that pass the judgment: “this rose is beautiful,” “this painting is beautiful,” and so on.

In this chapter I will be concerned with the striking shift of direction in Kant's analysis of judgments of taste, from an analysis of the explicit judgement about an object, to an analysis of the implicit judgment about the judging subjects. I propose moreover to show that when we reach the fourth moment of the Analytic of judgments of taste – that of modality – the systematic investigation of these judgments according to the “leading thread” of the logical functions laid out in the first *Critique* uniquely illuminates the relationship between the normative and the descriptive aspects of aesthetic judgments. As always with Kant, architectonic considerations thus play an essential role in the unfolding of the substantive argument.

I now start with the first title or “moment,” that of quality.

The predicate of the judgment of taste: the expression of a disinterested pleasure

I must first forestall a possible objection to the method just propounded. Given the differences Kant emphasizes between aesthetic judgments and the cognitive judgments of the first *Critique*, how can the “leading thread” of the logical forms of judgment at work in the first *Critique* be the slightest bit enlightening for our understanding of Kant's Analytic of the Beautiful? In the *Critique of Pure Reason* the table of the logical functions of judgment was presented as the systematic inventory of the functions of thought necessarily at work in any analysis of what is given to our sensibility, insofar as that analysis is geared toward subsuming individual representations (intuitions) under general representations (concepts). Because the logical forms of judgments were forms in accordance with which we analyze the sensible given into concepts, it was also supposed to be a key to those forms of synthesis of sensible manifolds that make possible their analysis into concepts. As such, the table of logical functions of judgment was also the “leading thread” for the establishment of a table of universal concepts of synthesis prior to analysis: the categories (cf. A70/B85–A85/B109).¹ But Kant is adamant that judgments of taste are not cognitive judgments, and that as aesthetic judgments, they do not rest on categories. This being so, in what way might the argument of the first *Critique*, to the effect that the table of logical forms of judgment can function as a leading thread for a table of

¹ See above, ch. 4, pp. 100–6.

categories, have any consequence whatsoever for understanding the nature of judgments of taste?

One preliminary answer is that following once again the leading thread of the elementary logical functions serves at least to establish a checklist of questions concerning the nature of the acts of judging at work in aesthetic judgments: investigating the manifest form of judgments of taste according to the four headings established in the first *Critique* is investigating the function of judging, *Funktion zu urteilen*, manifest in this form. Just as in the first *Critique*, all we have here is indeed a mere leading thread: investigating the logical form of an aesthetic judgment should give us an invaluable tool for understanding a content which cannot, of course, be reduced to that logical form. In aesthetic judgments, however, the content thus illuminated is not the content of the categories. Rather, the content brought to light by the Analytic conducted in accordance with the logical functions of judgment is that of the predicate of the judgment of taste: the predicate “beautiful.” In other words, to analyze, using the leading thread of logical functions of judgment, the act of judging the beautiful, is also to elucidate the meaning of the predicate “beautiful” in the propositions resulting from that act.

This is precisely why the first moment in the Analytic of the Beautiful is that of quality. As all commentators have noted, the order of exposition here differs from that of the table of judgments in the first *Critique*, where Kant started with quantity. This is because in a way, the whole analysis of aesthetic judgment boils down to the question: what is the meaning of the predicate of the judgment of taste (the predicate “beautiful”), i.e. what, if anything, is asserted of the object (the logical subject of the judgment “this X is beautiful”) in an aesthetic judgment? Consequently, when we consider aesthetic judgments under the title of quality, we are not merely considering their form. As to quality, the form of the aesthetic judgments Kant is most directly concerned with (e.g. “this rose is beautiful”) is affirmative, there is no particular difficulty about that.² But the interesting question is: what is thus being affirmed?

² This is not to say that there cannot be negative judgments of taste (“this X is not beautiful”) or even, more interestingly, judgments of taste whose predicate is the opposite of “beautiful” (e.g. “ugly”). All I mean to say here is that whatever the form of the judgment is as to its quality, Kant’s main concern in the first moment of the Analytic of the Beautiful is to take this form only as a starting point to investigate the content of the predicate asserted (or as the case may be, negated) in the judgment of taste. The most typical case of aesthetic judgment of taste, and that on which Kant focuses his attention, is that where the judgment is affirmative, and asserts of an object that it is beautiful. For a possible interpretation of the predicate “ugly,” see my “Kant’s theory of judgment, and judgments of taste: on Henry

What is the content of the predicate “beautiful” that is asserted of an object in aesthetic judgments?

Kant’s answer: the predicate “beautiful” does not express a reality – namely the positive determination of a thing, known through our senses.³ Rather, it expresses a feeling of pleasure brought about in the judging subject by its own mental activity in apprehending the object. This pleasure, albeit occasioned by the object, is elicited more directly by the receptivity of the judging subject to its own activity. This is why Kant describes the aesthetic pleasure as “disinterested.” An “interest,” he says, is a satisfaction that attaches to the representation of the existence of an object.⁴ To say that aesthetic pleasure is disinterested is not to say that the object does not need to exist for the pleasure to be elicited. Rather, it is to say that the object’s existence is not what causes our pleasure; nor does our faculty of desire strive to cause the existence of the object. Instead, the object’s existence is only the occasion for the pleasure, which is elicited by what Kant calls the “free play of the imagination and the understanding” in apprehending the object.

The pleasure we are talking about here is therefore of a peculiar nature. In §1 of the *Critique of the Power of Judgment*, Kant characterizes pleasure – and displeasure – as a “feeling of life” (*Lebensgefühl*) of the subject (v, 204). Similarly, in the *Critique of Practical Reason* he wrote:

Pleasure is the representation of the agreement of the object or the action *with the subjective conditions of life* [my emphasis], i.e. with the faculty of the causality of a representation with respect to the actual existence [*Wirklichkeit*] of its object (or with respect to the determination of the powers of the subject to action in order to produce the object).⁵

Now, to relate the feeling of pleasure to the “causality of the representation with respect to the existence of its object” is to relate it to the faculty of desire. For the latter is defined, in the same footnote of the *Critique of Practical Reason*, as “a being’s faculty to be by means of his representations the cause of the actual existence of the object of these

Allison’s *Kant’s Theory of Taste*,” *Inquiry*, vol. 46, no. 2 (2003), (henceforth “On *KT*”), pp. 154–5.

³ Cf. the explanation of “reality,” the first of the three categories of quality, corresponding to the form of affirmative judgment, in the first *Critique*: A80/B106, A183/B182.

⁴ *Critique of the Power of Judgment*, §2, AAv, p. 205. Henceforth references to the *Critique of the Power of Judgment* will be given in the main text, by volume and page in the Akademie Ausgabe, e.g. (v, 205). References to the First Introduction to the *Critique of the Power of Judgment* will be indicated in the main text by volume (xx) and page of the Akademie Ausgabe.

⁵ *Critique of Practical Reason*, v, 9n. Translation modified.

representations.” What Kant calls the “subjective conditions of life” are thus no other than the conditions under which the faculty of desire becomes active in striving to generate its objects. And the pleasure we take in an object is the representation of the agreement of that object with the faculty of desire.⁶

Defined in this way, pleasure is certainly not “disinterested” since it is linked, by its very definition, to the faculty of desire. However, in the First Introduction to the *Critique of the Power of Judgment*, Kant extends his definition of pleasure. He includes under the concept “pleasure” a feeling that is not directly linked to the “causality of the representation with respect to the actual existence of its object.” His definition of pleasure is now the following:

Pleasure is a state of the mind in which a representation is in agreement with itself, as a ground, either merely for preserving this state itself (for the state of the powers of the mind reciprocally promoting each other in a representation preserves itself) or for producing its object. (xx, 231)

The second kind of pleasure mentioned in this text (“Pleasure is a state of the mind in which a representation is in agreement with itself as the ground . . . for producing its object”) is the same as the kind described in the *Critique of Practical Reason* quoted above. But the first kind is different: it is the consciousness of a state that tends to nothing more than to preserve itself. This is the “disinterested” pleasure proper to the judgment of taste.

We find it described again in §10, where the definition of pleasure includes no reference at all to the interested pleasure that was the focus of the *Critique of Practical Reason*. Kant now writes:

⁶ When Kant, in the passage from the *Critique of Practical Reason* referenced in footnote 5, describes the faculty of desire as the “subjective condition of life,” we need to remember that for him, life is a capacity (*Vermögen*) of a material thing to produce itself, or to be cause and effect of itself. At least this is how our power of judgment, in its reflective use, allows us to represent living things, or organisms (see v, 372–7). In living beings that are also conscious and self-moving (animals), the faculty of desire is a “subjective condition of life” since the “capacity to be by one’s representation the cause of the existence of the object of one’s representation” allows the living being to act with a purpose in insuring its own production and reproduction. We understand, then, how pleasure can be described as a *Lebensgefühl* when it is the feeling of the agreement of the object with the subjective condition of life, or faculty of desire. However, in introducing the distinctive kind of pleasure which is the aesthetic pleasure, where the pleasure has *no* relation to the faculty of desire or is disinterested, Kant makes clear that pleasure as the *Lebensgefühl* is not necessarily connected with the faculty of desire defined as the “subjective condition of life” in the way just explained. I say more about this disconcerting point shortly.

The consciousness of the causality of a representation for *maintaining* the subject in its state, can here designate in general what is called pleasure; in contrast to which displeasure is that representation that contains the ground [*den Grund*] for determining the state of the representations to pass into its opposite (by repelling or eliminating those representations).
(v, 220)

This is the first of the two kinds of pleasure described in the First Introduction: a pleasure which does not relate to a faculty of desire directed toward obtaining its object, but instead is the mere consciousness of the effort of the mind to conserve its present state.⁷

But then what remains of the idea that pleasure is the “consciousness of the relationship of the representation to the subjective conditions of life”? And what about pleasure as a “feeling of life”? One proposal might be that in the case of aesthetic pleasure, the “life” in question is different from the biological life whose subjective conditions are, for non-rational creatures just as much as for rational creatures, the conditions under which the faculty of desire becomes active in striving to produce and obtain its object. The “life” whose consciousness is aesthetic pleasure might be the life of what Hegel will later call “spirit”: the life of the universal community of human minds.⁸

Here two objections may readily present themselves. First, one might object that I am extending Kant’s notion of life beyond recognition by trying to suggest a move from the biological life to which interested pleasure (the pleasure of sensation) is clearly connected, to a hypothetical “life of the spirit” to which disinterested pleasure (the pleasure of taste) might be connected. Does this second notion of life have more than metaphorical meaning? Second, one might object that I am moving even further from any recognizable Kantian doctrine when I suggest a comparison between this “life of the spirit” of dubious Kantian pedigree, and Hegel’s notion of spirit.

⁷ Note that Kant’s conception of pleasure is strikingly active. Both kinds of pleasure are characterized by a specific effort or striving: either an effort to produce (or reproduce) the object whose representation is accompanied by the feeling of pleasure; or the effort to remain in the state in which the mind affects itself, through its own activity, with a feeling of pleasure.

⁸ For this notion of spirit, see for instance G. W. F. Hegel, *Phenomenology of Spirit*, p. 110 (“‘I’ that is ‘We’ and ‘We’ that is ‘I’”). Of course the grounds on which this “We” is established in the *Phenomenology of Spirit* are very different from those I am exploring here in connection with Kant’s *Analytic of the Beautiful*.

In response I shall first note that Kant does grant that all pleasure or displeasure is the feeling of a living entity in the biological sense: a conscious corporeal being.⁹ Nevertheless, he adds, if all pleasure were a pleasure grounded on attraction or emotion, then there would be no justification for demanding of others an agreement with our own pleasure. So there has to be an a priori ground to the peculiar kind of pleasure that is the aesthetic pleasure of reflection. This a priori ground, as we shall see shortly, is a peculiar feature of the very functioning of our mind, or representational capacities. So far, all we know is that by virtue of this pleasure, the mind tends to nothing more, nothing less, than to maintain itself in its own state. Now, being the cause and effect of oneself is precisely Kant's characterization of life, as a capacity of corporeal things.¹⁰ It thus seems quite apt to say: in aesthetic pleasure, the mind is cause and effect of nothing but itself, and so aesthetic pleasure is *Lebensgefühl* in this restricted sense: feeling of the life of the mind (of the representational capacities). Nevertheless, the term "life" has at the same time its most usual sense (the capacity of a corporeal being to be cause and effect of its own activity), since there would be no feeling of pleasure unless the representational capacities were those of a living thing, in the ordinary sense of the term.

I added that this life of the mind is also "life of the spirit," i.e. the life of a universal community of judging subjects. With this suggestion I in fact anticipated a point that finds its initial expression only in the second moment of Kant's analytic of the judgment of taste: what it is about the state of the mind that elicits the peculiar kind of pleasure that is aesthetic pleasure is the very fact that it is universally communicable, or makes a claim to the possibility of being shared by all human beings. I thus suggest that the aesthetic pleasure, according to Kant, is a *Lebensgefühl* in the additional sense that it is a feeling of the life (the capacity to be the cause and effect of itself) of an a priori grounded community of judging subjects (a community grounded in the a priori representational capacities shared by all judging subjects, considered simply as such).

To recapitulate: in the first moment of his *Analytic of the Beautiful*, Kant asks: what is affirmed of the logical subject of the judgment, in the simple case of an affirmative judgment of taste such as "this X is beautiful"? His answer: what is affirmed is a feeling of disinterested pleasure elicited in us when we apprehend the object. I have suggested that this

⁹ See Kant's discussion of Burke's views at the end of the *Analytic of the Sublime* (v, 277–8).

¹⁰ On this point, see n. 6 above.

pleasure does meet Kant's generic definition of pleasure (pleasure is a "feeling of life") if one accepts that in this particular case "the feeling of life" is dissociated from the "subjective condition of life" which is the faculty of desire, and instead is the feeling elicited by the life of the spirit. Here I anticipated the second moment of the Analytic in suggesting to understand "spirit" as the a priori community of judging subjects, grounded in the universal a priori forms of their mental activity.

Let me now submit this last point to scrutiny by turning to the second moment, that of "quantity" in Kant's Analytic of the Beautiful.

The "subjective universality" of judgments of taste

Judgments of taste, as judgments about an object, are always singular. Of course, "beautiful" can also be the predicate of particular judgments ("some human beings are beautiful") or even universal judgments ("all roses in bloom are beautiful"). But in such cases, Kant maintains, the judgment is no longer "aesthetic," but "logical": it is a combination of concepts, expressing an inductive generalization from experience, not a present feeling in connection with a singular object of intuition. The predicate "beautiful," in such "logical" judgments, is a general concept expressing a property common to the objects referred to by the logical subject of the judgment. This common property was explained in the first moment: the objects said to be beautiful have in common that apprehending them is the occasion of a disinterested pleasure for the apprehending subject. But the predicate of an aesthetic judgment (e.g. the judgment "this rose is beautiful") expresses a pleasure that is felt at this moment upon apprehending this object. So the aesthetic judgment can only be singular (v, 215).

Now Kant claims that because the pleasure is disinterested, the judgment is determined as to its quantity in another respect: the satisfaction felt in this particular case by me ought to be felt by all other judging subjects who might find themselves apprehending the same object. If, as a judgment about the object, the judgment is singular, its predicate contains an implicit universal judgment, one that says of "the whole sphere of those who judge" (v, 215) that they ought to agree with my judgment, namely also attribute the predicate "beautiful" to the object of my judgment. Thus one might perhaps develop the judgment "this object is beautiful" in the following way: "This object is such that apprehending it elicits in me a pleasure such that all judging subjects, in

apprehending this same object, ought to experience the same pleasure and agree with my judgment.”

Kant does not explicitly articulate this development of the predicate of aesthetic judgments. I suggest that it is nonetheless justified by what he does say. He writes:

The aesthetic universality that is ascribed to a judgment must also be of a special kind; for although it does not connect the predicate of beauty with the concept of the *object*, considered in its whole logical sphere, yet it extends that predicate over the whole sphere of those who judge [*über die ganze Sphäre der Urteilenden*]. (v, 215, translation modified)

This “extension (of the predicate ‘beautiful’) over the whole sphere of those who judge” is expressed in the developed version of the judgment proposed above:

“all judging subjects, in apprehending this same object, ought to feel the same pleasure and agree with my judgment.”

Kant offers two arguments in support of the thesis that the predicate “beautiful” “extends over the whole sphere of those who judge.” The first is put forward in §6: since the feeling occasioned by the object judged to be beautiful is disinterested (this was established by the first moment), it does not depend on the particular physiological or psychological characteristics of this or that judging subject (as would be the case for the feeling expressed by the predicate “pleasant”). It ought therefore to be shared by any judging subject, simply by virtue of the fact of being a judging subject, namely of having a judging subject’s representational capacities.

This is a bad argument: after all, even while being disinterested in the sense Kant gives to the term, the satisfaction drawn from the apprehension of the object might depend on mental characteristics peculiar to some, not all subjects. Is this not what happens in playful activities, where individuals may differ greatly as to the kinds of games they may derive pleasure from (playing chess, backgammon, charades, or what have you)? This being so, the disinterested character of the pleasure (the fact that it is elicited by the mental activity of the subject rather than by the existence of this or that object) does not by itself seem to be a sufficient argument for maintaining that it is universally communicable.

Of course, the aesthetic pleasure is of a different nature, since it is supposed to be a pleasure we take in our mental activity in apprehending an object, whereas in the cases I mentioned, we take pleasure in our

own mental activity without the mediation of any contemplation at all. Moreover, a game is bound by rules, whereas aesthetic experience transcends all rules. So I am not saying the two cases are exactly the same. The only point I want to make here is that the fact that the pleasure is elicited by the mental activity itself and is, in this sense, disinterested, is not a sufficient ground for making it universalizable.

Another objection to the counterexample I am proposing might be that the playful activities I cite are not disinterested at all: a major part of the pleasure we derive from engaging in such activities is the pleasure of winning (or the pleasure of striving to win), where we strive to cause a state of affairs in the world (asserting our superiority over our opponent, obtaining authority over her, and so on). But supposing this is true (and it is not true in all cases: what about charades, or a game of solitaire?) all it shows is that the pleasure we take in playing is not purely disinterested: other pleasures are mixed with the pleasure of exercising our mental capacities. But this is also true of the aesthetic pleasure of reflection Kant is concerned with. To admit that the disinterested pleasure we take in the play of our own mental capacities be mixed with interested pleasures does not by itself amount to a denial that there is a measure of disinterested pleasure in the game, nor does it amount to a refutation of the fact that such disinterested pleasure can be occasioned by different mental activities in different individuals.

I conclude, then, that Kant's attempt to derive the subjective universality of the pleasure from its disinterested character is unsuccessful.¹¹ But as I said above, this is not the only argument Kant offers in support of the thesis that the predicate "beautiful" "extends over the whole sphere of those who judge." One can find another line of thought in a

¹¹ On this point I agree with Paul Guyer and disagree with Henry Allison. See Paul Guyer, *Kant and the Claims of Taste* (Cambridge: Cambridge University Press, 1997) (henceforth *KCT*), p. 117; Henry Allison, *Kant's Theory of Taste: a Reading of the Critique of Aesthetic Judgment* (Cambridge: Cambridge University Press, 2001) (henceforth *KTT*), p. 99–100. See also my discussion of Henry Allison in "On *KTT*," p. 152, and Allison's response in the same issue of *Inquiry*, pp. 186–7. Allison maintains (p. 183) that in refusing to grant Kant's claim that the subjective universality of taste can be derived from the disinterested character of the relevant pleasure, I deny the systematic nature of Kant's exposition of the four moments in the *Analytic of the Beautiful*. But I do not think this is true. In a standard analysis of a judgment as to its form, none of the four titles derives from any of the others: they are just four inseparable aspects according to which a judgment can be analyzed (quantity, quality, relation, modality). The fact that here what I have called the "checklist" of the four titles serves to bring to light a content does not alter the fact that each title defines in its own right a particular aspect of the judgment, as to its form and thus as to the content thought according to this form.

passage that has elicited a great deal of controversy among commentators. This is the beginning of §9 in the *Analytic of the Beautiful*, where Kant seems to claim that the universal communicability, or capacity to be shared (*Mittelbarkeit*), of the mental state in apprehending the object is precisely what elicits the pleasure that is proper to the judgment of taste. If this is so, there is no need any more to ground the subjective universality of the judgment in the disinterestedness of the pleasure. Rather, the fact that the pleasure is a pleasure we take in the universal communicability of our state of mind in judging the object is a primitive fact and is itself a reason for defining the aesthetic pleasure as disinterested.

The passage is worth quoting at some length:

§9—*Investigation of the question: whether in the judgment of taste the feeling of pleasure precedes the judging of the object or the latter precedes the former.*

The solution of this problem is the key to the critique of taste, and hence worthy of full attention.

If the pleasure in the given object came first, and only its universal communicability were to be attributed in the judgment of taste to the representation of the object, then such a procedure would be self-contradictory. For such a pleasure would be none other than mere agreeableness of a sensation [*die bloße Annehmlichkeit in der Sinnesempfindung*], and hence by its nature could have only private validity, since it would immediately depend on the representation through which the object is given.

Thus it is the universal communicability of the state of mind in the given representation [my emphasis] which, as a subjective condition of the judgment of taste, must serve as its ground and have the pleasure in the object as a consequence. (v, 217)

Kant's view here seems to be the following. If the pleasure we take in the object were the ground of our aesthetic judgment (the judgment that the object is beautiful), then the very claim that the judgment is universalizable (ought to be shared by all) would be self-contradictory. For a pleasure elicited by the object is a subjective feeling depending on the particular constitution of particular subjects, namely the different ways in which they can be causally affected by the object. Such a feeling can thus only give rise to judgments such as "this is agreeable," where the implicit restriction is: "agreeable for me." This being so, the only remaining option is to reverse the relation between pleasure and universal communicability or capacity to be shared, and to say that rather than the pleasure being the source of the universal communicability of the judgment, it is the universal communicability of the state of mind in

judging the object that is, itself, the source of the pleasure. Here we bypass altogether the problem that was raised by the attempt to ground the universal communicability of the judgment on the disinterested character of the pleasure: the universal communicability is itself the source of a pleasure of a special kind, which grounds the judgment “this is beautiful.”

Here one may object that aesthetic judgments are not the only kind of judgments about an empirically given object that can make a claim to the universal agreement of all judging subjects. Judgments of empirical cognition, insofar as they are true and known to be true, must be known to be true independently of the particular empirical state of the judging subject. In a much discussed passage from the *Prolegomena*, Kant tries to show what makes possible, in the case of empirical judgments, the transition from a “judgment of perception,” which is true only “for me, and in the present state of my perception,” to a “judgment of experience” which is true “for everyone, always.” He argues that such a transition is made possible by the a priori conditions grounding the possibility of all empirical knowledge. These conditions can be called subjective because they belong to the cognitive capacities of the conscious subject. But they are transcendental and thus universally shared conditions, which alone make possible knowledge of any empirical object whatsoever.¹² So if judgments of taste make a claim to the agreement of all judging subjects, they are certainly not the only judgments about empirical objects to make such a claim. Why then are all empirical judgments not accompanied by the same pleasure, and why are all objects of empirical knowledge not judged to be beautiful?

The first part of the answer we can suppose Kant would give to this question is that the comparison between aesthetic judgments of reflection and empirical judgments with respect to their universal communicability, or capacity to be shared, is indeed quite relevant. For aesthetic judgments, just as empirical judgments of cognition, start with acts of apprehending and reflecting on the object (looking for concepts under which the particular object might fall). And the outcome of both acts of judging (judgments such as “this rose is beautiful” in the case of aesthetic judgments, judgments such as “this is a rose,” “this rose is in bloom” in the case of empirical judgments of cognition) depend on the same representational capacities, imagination and understanding, and their

¹² See *Prolegomena*, §§18–22, AAiv, pp. 297–304.

agreement (imagination synthesizing in conformity to some concepts of the understanding in the case of cognitive judgments; imagination being in agreement with understanding without falling under the rule of any particular concept in the case of aesthetic judgment). Indeed if we return to the question Kant asks at the beginning of §9 (whether “in the judgment of taste the feeling of pleasure precedes the judging of the object or the latter precedes the former”), the “judging” which turns out to precede the feeling of pleasure should be understood as the act of reflecting upon the object, which puts into play imagination and understanding and elicits their mutual agreement.

But if this were the whole answer, we would be left with the question stated above: why, then, are all empirical judgments of cognition not accompanied with the same pleasure as that expressed in judgments of the beautiful? Here comes the second part of the answer. In a judgment of empirical cognition, the outcome of the agreement of the imagination and the understanding is a concept that directs us to the object recognized under the concept. Thus for example the agreement of the imagination (which provides the rule of synthesis by which I generate for myself the image of a dog) with the understanding (which provides me with the empirical concept of a dog) leads me to recognize, in the animal I have in front of me, a dog. In aesthetic judgments, by contrast, the agreement of imagination and understanding does not stop at a specific concept (recognizing this as a dog, as a house, as a sunset). Although of course the object judged to be beautiful can be recognized under concepts (e.g. “this rose is yellow,” “this rose is in bloom,” and so on), expressing an aesthetic judgment (“this rose is beautiful”) is expressing something different: the fact that in the mutually enhancing play of imagination (apprehending the object) and understanding (thinking it under concepts) no concept can possibly account for the peculiarity of my experience in apprehending the object. What remains in play to account for this experience is only the mutually enhancing or enlivening agreement of imagination and understanding itself, and its universal communicability (its capacity to be shared). This universal communicability itself, or if you like, this feeling of communion with “the universal sphere of those who judge” that transcends all determinable concepts is the source of the peculiar kind of pleasure that leads us to describe the object as “beautiful.”

One may then want to make the reverse objection: how can the comparison with empirical judgments of cognition be helpful at all? In their case, the universal communicability (capacity to be shared,

Mitteilbarkeit) of the agreement of imagination and understanding is the communicability of the outcome, the subsumption of the object under a concept, or concepts, and the possible agreement about that outcome. Absent such an outcome, how can such agreement occur, or if it occurs at all, how can it be manifest? Here the answer is that indeed the comparison with the case of empirical judgments of cognition is not sufficient to ground the assertion that aesthetic judgments do rest on an agreement between imagination and understanding, or that the agreement in question is universally communicable. All it shows is how those judgments might rest on such an agreement or “free play” (unbound by concept). I shall return to this point when discussing the fourth moment of the Analytic of the Beautiful, where Kant addresses more explicitly the relation between aesthetic judgments and empirical judgments of cognition. For now let me just note that already in the context of the second moment, Kant maintains that the universal communicability of the state of mind in the judgment of taste is “postulated” as a “universal voice” rather than expressed in a concept, as is the case for cognitive judgments.

My suggestion, then, is the following: according to Kant, the pleasure we experience in apprehending the object we judge to be beautiful is twofold. It is a first-order pleasure we take in the mutual enlivening of imagination and understanding in an act of apprehension and reflection that is not bound by the rule of any universal or particular concept. That is what Kant calls the “free play” of imagination and understanding. But that pleasure on its own would not yet be sufficient to constitute our experience of what we call aesthetic pleasure of reflection, pleasure in the beautiful. Another constitutive feature of that aesthetic pleasure is the sense that the mutual enlivening of imagination and understanding in apprehending the object, and the first-order pleasure it elicits, could and ought to be shared by all. This sense of a universal communicability (capacity to be shared) of a pleasurable state of mutual enhancement of imagination and understanding is the source of the second-order pleasure that results in the aesthetic judgment: “this is beautiful.” This is why the pleasure includes the peculiar kind of longing (the demand we make upon others, to share in the pleasure we experience and to agree with the judgment we ground on that pleasure, “this is beautiful!”) that is characteristic of the aesthetic experience.

In claiming that for Kant, consciousness of the universal communicability of the state of mind in apprehending the object is itself a source of pleasure, I am in agreement with the view defended by Hannah

Ginsborg, *pace* other prominent interpreters of Kant.¹³ But my view differs from hers in that for her the aesthetic pleasure is nothing but a self-referential act of judging, where the whole content of the act is the assertion of the universalizability of that very act of judging.¹⁴ In my reading, according to Kant we take pleasure in the universal sharability of the state of mind that is elicited in apprehending the object: the “free play” (the mutually enhancing agreement, without the rule of a determinate concept) of our cognitive capacities, which is itself a pleasurable state.

Thus without having to be derived from the first moment, the second moment of the *Analytic of the Beautiful* is consistent with its initial inspiration. The agreement of imagination and understanding, unbound by a determinate concept, is a “free play” where each enhances the activity of the other. The consciousness of that agreement is a source of pleasure, and the consciousness of the universal communicability of the free play and of the pleasure derived from it, is itself a source of pleasure. The pleasure we take in the universal communicability of a state of harmony, namely the combination of a second-order pleasure (the pleasure of communicability) and a first-order pleasure (the pleasure in the free play of imagination and understanding in apprehending a particular object) is what is expressed in the predicate of an aesthetic judgment of reflection, “this is beautiful.”

Let me recapitulate. I have argued that the peculiarity of the judgments of taste, as analyzed by Kant according to his “leading thread,” is that an explicit judgment about the object supports an implicit judgment

¹³ See Paul Guyer, *KCT*, pp. 139–40. Henry Allison, *KTT*, pp. 110–18.

¹⁴ See Hannah Ginsborg, “On the key to the critique of taste,” *Pacific Philosophical Quarterly*, vol. 72 (1991), pp. 290–313. Also “Lawfulness without a law: Kant on the free play of imagination and understanding,” *Philosophical Topics*, vol. 25, no. 1 (1997), pp. 37–81. In the latter essay, Ginsborg seems to give more content to the aesthetic judgment than that of being a self-referential judgment that asserts nothing beyond its own universal validity. For what now seems to be universally valid (or, in her own words, what seems to be exemplary of a rule that has universal validity) is the activity of imagination in apprehending a particular object. Nevertheless, it remains that the aesthetic judgment, which is no other than the aesthetic pleasure itself, is the judgment that asserts this exemplary validity of my act of apprehension, or asserts that my act of apprehension is “as it ought to be.” I agree with her insistence on the consciousness of universal validity as a component in the feeling of pleasure, but I disagree with her attempt to reduce the content of the judgment to this self-referential assertion of universal validity. See also her discussion of Allison’s view on this point in “Aesthetic Judging and the Intentionality of Pleasure,” *Inquiry*, vol. 46, no. 2 (2003), pp. 164–81. And my own discussion of Allison’s view in “On *KTT*,” pp. 152–5.

about the judging subjects. We have seen what this thesis means in the case of the first two moments. According to the first moment, the predicate of the judgment of taste does not express a property that the judgment asserts of the object; nor does it express a disposition of the object to cause a state of pleasure in the subject. Rather, it expresses a disposition of the judging subjects to elicit in themselves a state of pleasure upon apprehending the object. According to the second moment, the pleasure thus elicited actually has two components: the first-order pleasure elicited by the “free play” or mutually enhancing agreement of imagination and understanding; and the pleasure taken in the universal communicability of the pleasure thus elicited. Kant’s striking thesis is that the consciousness of the universal communicability of the state of mind in apprehending the object is itself the source of the pleasure specific to a judgment of the beautiful. This is what is expressed by the clause I suggested to find implicitly contained in the predicate of the judgment of taste: “All judging subjects, upon apprehending this object, ought to feel the same pleasure and to agree with my judgment.”

This turning around, in Kant’s *Analytic of the Beautiful*, from the manifest judgment about the object to the implicit judgment imbedded in its predicate, finds its culminating point with the third title, “relation,” which I will now consider.

Relation in aesthetic judgment: the “purposiveness without a purpose” of the apprehended object as the ground of the “purposiveness without a purpose” of the judging subject’s state of mind; and vice versa

In order to understand the question Kant poses himself under the heading of “relation” in judgment, we must recall the significance of this heading in the table of logical functions in the first *Critique*.

What Kant calls “relation” in a judgment “S is P” is the relation of the assertion of the predicate P (or more precisely, the assertion that an object x belongs to the extension of the predicate P) to its ground or reason (*Grund*). The ground or reason of a judgment is what, in the subject S (in a categorical judgment) or in the condition added to the subject S (in a hypothetical judgment), justifies attributing the predicate of that judgment to all (or some, or one) object(s) X thought under S. For example, the ground of the attribution of the predicate “mortal” to all objects X falling under the concept “man” in the judgment “all men are mortal” is that the subject-concept “man” can be analyzed into “animal”

and “rational.” And “animal,” as containing “living,” also contains “mortal.” Similarly, in the judgment “Caius is mortal,” the ground of the attribution of the predicate “mortal” to the individual named “Caius” is the concept “man” under which the singular object named “Caius” is thought.¹⁵

When Kant examines judgments of the beautiful under the title of relation, then, the question he asks himself is: what grounds the assertion of the predicate “beautiful” in such judgments? Is it the subject S of the judgment (for example, “this rose” in “this rose is beautiful”), and if so, what is it about this subject S that grounds the assertion of the predicate P (“beautiful”)? Is it a character contained in the subject-concept (in which case the aesthetic judgment would be analytic) or is it something about the experience or perhaps even the mere intuition falling under that concept?

That the ground of predication is what is under examination in this third moment, is attested by passages such as this:

§11— *The judgment of taste has nothing but the form of the purposiveness of an object (or of the way of representing it) as its ground [zum Grunde]. Every end, if it is regarded as a ground of satisfaction, always brings an interest with it, as the determining ground of the judgment about the object of the pleasure. Thus no subjective end can ground the judgment of taste. But further no representation of an objective end, i.e. of the possibility of the object itself in accordance with principles of purposive connection, hence no concept of the good, can determine the judgment of taste, because it is an aesthetic judgment and not a cognitive judgment . . . Thus nothing other than the subjective purposiveness in the representation of an object without any end (objective or subjective) . . . can constitute . . . the determining ground [der Bestimmungsgrund] of the judgment of taste. (v, 221)*

As we can see, what is at issue here is the *Bestimmungsgrund* of the aesthetic judgment, namely the ground of the determination of the subject with respect to the predicate, or the ground of the assertion that the subject falls under the predicate. Since the judgment is categorical, the ground of predication is to be found in the subject S of the judgment, “S is P.” Now, as we have seen under the title of quantity, the subject of an aesthetic judgment is always singular (this rose). So the ground of the assertion of the predicate is the intuition by way of which the singular object is given. But according to the first moment

¹⁵ On the example cited, see A321–2/B378.

(that of quality), the pleasure expressed in the predicate is disinterested: it is not caused by the existence of the object, nor does it depend on a moral interest we might take in the existence of that object. Rather, it is a pleasure elicited by our own mental activity in apprehending the object. In other words, it is a pleasure we derive from the form of the object insofar as this form lends itself, when we apprehend it, to the mutually enhancing agreement of our imagination and our understanding.

Now this feature of the object, that its form is such that apprehending it or synthesizing it is beneficial to the mutual enhancement of our imagination and understanding, is what Kant calls, in the text just quoted, the “subjective purposiveness in the representation of an object, without any purpose either subjective or objective.” The ground of the predication, then, in the judgment “this rose is beautiful,” is the intuited form’s disposition to elicit the mutually enhancing agreement of imagination and understanding in their apprehension of this form. The form of the object satisfies a subjective purpose – the agreement of the imagination and the understanding, and the pleasure thus elicited. But this subjective purposiveness of the form does not in any way justify us in supposing that an intention has actually presided over the creation of this form, with a view to satisfying this purpose. So the object is formally purposeful (its form satisfies a purpose: the mutually enhancing play of imagination and understanding), although we have no concept at all of how such a purpose might actually have been at work in producing this object.

Moreover, the purposiveness of the object – the fact that it satisfies an immanent purpose of the human mind, that of enhancing its own pleasurable life – is also a purposiveness of the mind itself. For again, what elicits pleasure is the free play and thus the mutual enhancement of the cognitive capacities (imagination and understanding) in the apprehension of the object, together with the feeling that such a free play, and the feeling it elicits, can be shared by all. The judging person’s state of mind is therefore itself “purposive, without the representation of a purpose.” The mental activity at work in apprehending the object judged to be beautiful is accompanied by the feeling that a purpose is satisfied by it: the purpose that the mind be precisely in the state it is in. And yet, here again we have no concept of how such a purpose is satisfied. Like the form of the object, the state of mind is “purposive” (it satisfies a purpose, that of maintaining the mind precisely in the state it is in) without the representation of a purpose (i.e. without any determinate concept of this purpose).

This twofold purposiveness – of the object, of the mental state itself – explains, I think, the title of the third moment of the *Analytic of the Beautiful*: “Third moment of judgments of taste, according to the relation of the purposes which in them are taken into consideration.” The relation expressed in an aesthetic judgment is that of the purposiveness expressed in the predicate to the purposiveness expressed in the subject. A purposiveness is expressed in the predicate because the predicate “beautiful” expresses the fact that a pleasure is elicited by the universal communicability of the mutually enhancing play of the imagination and the understanding. This purposiveness has its ground in the purposiveness of the subject of the judgment: the “purposiveness without a purpose” of the apprehended (synthesized) form of the intuited object.

If this is correct, then the judgment of taste is the culminating point of the Copernican revolution that began with the first *Critique*. For the ground of the assertion of the predicate in the judgment of taste is the intuited form of the object, precisely insofar as it is synthesized by the subject. So in the object, what grounds the assertion of the predicate “beautiful” are just those features that depend on the synthesizing activity of the subject.

This point is confirmed if we now consider the implicit judgment imbedded in the predicate of the judgment of taste. I suggested earlier that the predicate “beautiful” might be explained in the following way: “beautiful” means “such that apprehending it elicits in me a pleasure such that all judging subjects, in apprehending this same object, ought to agree with my judgment.” The implicit judgment imbedded in the predicate (“all judging subjects, in apprehending this same object, ought to agree with my judgment”) is a categorical judgment: the ground of predication is to be found in the subject of the judgment, “all judging subjects.” And yet that ground is not to be found in the concept of a judging subject: it is not by virtue of a character I know to belong universally to all judging subjects that I claim that all of them ought to agree with my judgment. Nor is the ground of the predication to be found in my empirical knowledge of judging subjects. Rather, the ground for attributing the predicate “ought to agree with my judgment” to all judging subjects (or, in Kant’s terms, to “the whole sphere of those who judge”), is the capacity I attribute to all of those who judge, to experience the very same feeling I presently experience. And my only ground for attributing to them this capacity is the feeling itself, as I experience it.

Let me recapitulate again. I have argued that according to the moment of “relation,” the ground of the assertion of the predicate “beautiful” is the

“purposiveness without a purpose” of the form of the apprehended object. This purposiveness consists in the form’s capacity to elicit the mutually enhancing play of imagination and understanding in the apprehending subject. But the form of the object elicits such a mutually enhancing play of cognitive capacities only because it is a synthesized form, a form that is apprehended as the particular form it is only by virtue of the mental activity of the apprehending subject. Thus what in the representation of the object grounds the assertion of the predicate “beautiful” is its dependence on the mental activity of the subject. I have also argued that the implicit judgment imbedded in the *predicate* of the aesthetic judgment (“all judging subjects, upon apprehending this object, ought to experience the same feeling and thus agree with my judgment”) is grounded on the capacity I postulate in all judging subjects (and indeed, as we shall see, demand of them) to experience the free play of their cognitive capacities I myself experience in apprehending the object, and thus to share my feeling and agree with my judgment.

We will have to keep these two features in mind to understand Kant’s view of the modality of judgments of taste, to which I now turn.

The subjective necessity of judgments of taste

The modality of a judgment of taste, says Kant, is that of necessity. But what is “necessary”? Is it the connection between the predicate and the subject in the manifest judgment about the object (“this rose is beautiful”)? Or is it rather the connection between the predicate and the subject in the implicit judgment about the judging subjects (“all judging Subjects, upon apprehending this same object, ought to experience the same pleasure and thus agree with my judgment”)? If the former, what is said to be necessary is the connection between the object considered in its form, and the pleasure I feel in apprehending it. If the latter, what is said to be necessary is the connection between the obligation implicitly assigned to all judging subjects (they “ought to agree with my judgment”) and these judging subjects, considered simply as such.

I submit that Kant wants to assert the necessity of both connections. He asserts at the outset that the relation between the object and the satisfaction it elicits is necessary: “Of the beautiful . . . one thinks that it has a necessary relation to satisfaction” (v, 237). But he then immediately goes on to assert the necessity of the agreement of all judging subjects with my judgment, taken as the example of a rule:

[The] necessity that is thought in an aesthetic judgment . . . can only be called *exemplary*, i.e. a necessity of the assent of *all* to a judgment that is regarded as an example of a universal rule that one cannot produce.
(v, 237)

Note that the situation here is not parallel to that of quantity. The quantity of the manifest judgment about the object was different from that of the implicit judgment about the judging subjects (the former was singular, the latter universal). In contrast, here the necessity of the latter (the implicit judgment about the judging subjects) seems to ground the necessity of the former (the manifest judgment about the object): because all judging subjects ought to judge as I do, the relation of the predicate “beautiful” to the subject of the manifest judgment can legitimately be asserted as necessary. We can understand why this is so: what is beautiful is the object as apprehended, and being beautiful is the same as being judged to be beautiful. To say that all judging subjects ought necessarily to agree with my judgment is to say that the object ought necessarily to be judged beautiful, or that the connection between the predicate “beautiful” and the object is necessary.

This still does not tell us, however, how we should understand this modality of necessity. Is the necessity of the connection between “all judging subjects” and “ought to agree with my judgment” to be understood on the model of the subjective necessity of judgments of experience (because I claim objective validity for my judgment, I claim that all judging subjects ought to agree with my judgment)? Or is it to be understood on the model of a moral imperative: “All rational beings ought to act in such and such a way” (under the categorical imperative of morality)?

Kant’s response, I suggest, is that both models are relevant. Indeed, both serve to clarify the crucial notion of a *sensus communis* on which Kant will later base his deduction of judgments of taste, namely his justification of their claim to (subjective) universality and necessity.

Already in §20 of the fourth moment, Kant states that the subjective necessity of the judgment of taste is affirmed only under the condition that there be a common sense, *Gemeinsinn*. By “common sense” he means “not any external sense, but rather the effect of the free play of our cognitive powers” (§20, v, 238), that is to say, the feeling that we have of this free play and of its universal communicability. This is in direct continuity with what was said in the first two moments of the *Analytic of the Beautiful*. As we saw, according to the first moment, the aesthetic pleasure is a disinterested pleasure elicited in the mind by its own activity

in apprehending the object. According to the second moment, this activity is one of “free play” of imagination and understanding and the pleasure expressed by the predicate “beautiful” is both a first-order pleasure taken in this free play, and a second-order pleasure in the universal communicability of the feeling thus elicited. The agreement of imagination and understanding in cognition and the universal communicability of that agreement provide an argument for at least supposing the possibility of a similar universal communicability of the state of mind in the free play of imagination and understanding, and thus a *sensus communis aestheticus* as the ground for the aesthetic pleasure expressed in the predicate “beautiful.” In this context, the obligation assigned to “all judging subjects” to agree with my judgment is not analogous to a moral obligation. Rather, it is analogous to the obligation to submit oneself to the norm of truth (the rule-governed agreement between imagination and understanding) in cognitive judgments. And indeed, it is by drawing on the a priori agreement of imagination and understanding in cognition that Kant initially justifies the supposition of a common sense as the ground of aesthetic judgments:

One will thus with good reason be able to assume a common sense [*so wird dieser mit Grunde angenommen werden können*], and without appealing to psychological observations, but rather as the necessary condition of the universal communicability of our cognition, which is assumed in every logic and every principle of cognitions that is not sceptical. (v, 239)

But there is something surprising about this justification. For as we saw in discussing the second moment, what grounds the subjective universality and thus also the subjective necessity of cognitive judgments in the first *Critique* is not the free agreement of imagination and understanding, but their agreement for the production of concepts, that is to say, according to the rules imposed by the understanding. The fact that there is such an agreement (not free, but ruled by the understanding) may perhaps give us reason to believe in the possibility of a similar agreement even without a concept. But that does not give us sufficient grounds for affirming that such an agreement exists, and still less that it necessarily exists. Indeed Kant is more cautious when he writes:

This indeterminate norm of a common sense is really presupposed by us: our presumption in making judgments of taste proves that. Whether there is in fact such a common sense, as a constitutive principle of the possibility of experience, or whether a yet higher principle of reason only makes it into a regulative principle for us first to produce a common

sense in ourselves for higher ends, thus whether taste is an original and natural faculty, or only the idea of one that is yet to be acquired and is artificial, so that a judgment of taste, with its requirement [*Zumuthung*] of a universal assent, is in fact only a demand of reason to produce such unanimity in the manner of sensing, and whether the ought, i.e. the objective necessity of the convergence of everyone's feeling with that of each, signifies only the possibility of such agreement, and the judgment of taste only provides an example of the application of this principle – this we neither want nor are able yet to investigate here; for now we have only to resolve the faculty of taste into its elements and to unite them ultimately in the idea of a common sense. (v, 239–40)

As we can see, here the model for the subjective necessity of the judgment of taste is no longer the claim to necessary agreement proper to a judgment of experience, but rather the demand of moral duty. The a priori agreement of imagination and understanding in cognition allows us only to accept as possible the “common sense” which would ground aesthetic judgment; but the request of a universal agreement of rational agents under the moral law now appears to be a ground to demand that we cultivate in ourselves the capacity to develop a “common sense.” As we saw, already in the course of the second moment Kant maintained that we postulate the “universal voice” under which we formulate a judgment of taste (cf. v, 216).

Kant does not always clearly distinguish between the mere possibility of an agreement of everyone with my own evaluation, based on the free play of imagination and understanding, and the postulated existence of this agreement, as a capacity which each judging subject has an obligation to develop in himself and demand of others. But it is important to keep this distinction in mind in order to free Kant of the burden of an all too evident objection, which we have already encountered in our examination of the second moment: if the *sensus communis*, understood generically as the universally communicable agreement of imagination and understanding, is the common ground of cognitive judgments and aesthetic judgments, why is every cognitive judgment not the occasion of aesthetic pleasure? On the other hand, if there is merely a kinship, not a generic identity, between the *sensus communis* that grounds judgments of taste (a universally communicable free play and mutual enhancement of imagination and understanding in apprehending the object and reflecting upon it, known by feeling) and the *sensus communis* that grounds judgments in empirical cognition (a universally communicable agreement of imagination and understanding in apprehending the

object and reflecting upon it, known by virtue of the concepts that express it, and thus not “free,” but rule governed), why would the latter be a sufficient ground for admitting the existence of the former? This objection falls if Kant’s argument for the existence of a *sensus communis* grounding aesthetic judgments has the two distinct steps mentioned above: (1) the universal communicability of the state of mind in cognition shows that it is possible that the agreement of the imagination and the understanding, even when it is not ruled and reflected by concepts (when it is a “free play” eliciting a feeling of pleasure), be universally communicable; (2) we demand that this agreement should be universally communicable, and because we demand it, we make it “as if a duty” to bring it about in ourselves and in others.

These two steps are expressed in the form of a question in the text quoted above: should we consider the *sensus communis* as a natural capacity, or rather as the object of a higher demand of reason that we develop this capacity in ourselves and in others? The two steps will be confirmed and amplified in the deduction of the judgment of taste (although again somewhat ambiguously). In the very short paragraph entitled “Deduction of the Judgment of Taste” (§38), Kant asserts again that the claim to subjective universality and necessity of our judgments of taste has the same ground as the claim to subjective universality and necessity of judgments of empirical cognition, justified in the first *Critique*. This is the first step in the two-step argument summarized above. In §40, Kant adds:

If one was allowed to assume that the mere universal communicability of his feeling must in itself already involve an interest for us (which, however, one is not justified in inferring from the constitution of a merely reflective power of judgment), then one would be able to explain how it is that the feeling in the judgment of taste is required of everyone as if it were a duty [*gleichsam als Pflicht jedermann zugemutet werde*]. (v, 296)

Here is how I understand this passage: by itself, the “merely reflective” use of the power of judgment, namely the use in which the play of imagination and understanding does not lead to a concept, would not suffice to explain why we demand of everyone, as if it were a duty, that they share our pleasure in the object we judge to be beautiful. Something else is needed in order to explain this demand, something that would make the *sensus communis* not only a *Gemeinsinn* (a common sense) but a *gemeinschaftlicher Sinn*: a sense by virtue of which we take ourselves to belong to a community of judging subjects. This something else is an interest which we take not in the object of the judgment (that possibility

has been excluded in the course of the first moment), but in the very fact of the universal communicability of the judgment, that is to say in the very fact that through this shared judgment we progress toward a community of judging subjects.

Indeed in the next two sections Kant sets about explaining successively (1) that there is an empirical interest attached to the judgment of taste, that of developing sociability in ourselves; and (2) that there is an “intellectual” interest (an interest we have insofar as we are rational) in recognizing in nature and in ourselves the sensible sign of a common supersensible ground. In recognizing this supersensible ground, it is our own moral nature that we also recognize, and this makes the “ought” in “all judging subjects ought to agree with my judgment” closer to a moral “ought” than to the obligation assigned to cognitive subjects, to yield to the norms of truth in empirical judgments.

There is a caveat here. Only the beautiful in nature can give rise to such an intellectual interest. For only judgments about nature serve the interest of morality by pointing to the supersensible ground common to nature and to us. As for the beautiful in art, at most it serves the interest we have in the development of our natural tendency toward sociability, which is an empirical interest, grounded in the empirical characteristics of humanity as a natural species (v, 296–7). Does this mean that only judgments of beauty in nature have the modality of necessity Kant tries to justify in his deduction of judgments of taste? This would be surprising, for all the examples Kant gives to illustrate the demand of a universal agreement with our judgments of taste concern the beautiful in art (see §§32–3, v, 281–5). How are we to understand this apparent inconsistency? I think there are two answers.

The first can be found in the relation between *sensus communis* and *Aufklärung*. Kant emphatically endorses the three mottos he attributes to *Aufklärung* (Enlightenment): to think for oneself, to think by putting oneself in the position of all other human beings, to think always consistently (see v, 294). Now, the universal communicability of judgments of taste, whether they apply to nature or to art, makes them uniquely apt to satisfy the first two maxims of the *Aufklärung*. And in their case, the third maxim is irrelevant: any singular aesthetic judgment carries its own exemplary norm and thus is in no need of “consistency” with other judgments. In short, in the case of aesthetic judgments the mere possibility of universal communicability of a feeling becomes the normative necessity of a duty to create the conditions of such universal communicability. And this applies to our experience of beauty in art just as much as in nature.

The second answer lies in Kant's conception of genius as a state of mind in which "nature gives the rule to art" (v, 307). Relating artistic creation to genius defined in this way means giving judgments of taste applied to works of art their full share in the relation to the supersensible which is the ground of the subjective universality and necessity of aesthetic judgments applied to nature. This point is confirmed in the dialectic of the critique of taste, where Kant describes genius as the "faculty of aesthetic ideas" (v, 344). An aesthetic idea, he says, is a sensible presentation of the supersensible, of which we neither have nor can have any determinate concept. Despite Kant's very Rousseauian suspicion of art and its relation to the ends of self-love, it remains that the beautiful in art, insofar as art is the creation of genius, lends itself to the same demand for the universal and necessary agreement of all judging subjects, as the beautiful in nature.

Now we may well find that this is too much. To have to suppose a consciousness of the supersensible ground common to the object and to ourselves, as the ground of the subjective universality and necessity of the aesthetic judgment, is more than most of us can swallow. However, Kant's analysis of the two judgments present in the judgment of taste – the manifest judgment about the object, the implicit judgment about the judging subjects – may lend itself to a lighter reading. One might accept the striking combination of a normative judgment about the judging subjects (expressed in the predicate of the judgment of taste as I have proposed to develop it) and a descriptive judgement about the object considered in its form (expressed in the manifest judgment of taste, "this X is beautiful"), while rejecting Kant's appeal to the supersensible as the ultimate ground of the judgments of taste. One would then no longer have any reason to grant any privileged status to the beautiful in nature over the beautiful in art, since the main reason for that privilege seems to be that nature, not human artefact, is a direct manifestation of the supersensible that grounds aesthetic experience. In accounting for the specific features of aesthetic experience and judgment of taste one may still maintain that the mere possibility of universally sharing aesthetic pleasure becomes a normative necessity, an obligation made to all human beings to take their part in the common effort to constitute humanity as a community of judging subjects, beyond the particular limitations of each historically and biographically determined sensing, feeling, emotional access to the world of sensory objects. This is, I think, the lasting legacy of Kant's view.

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